LABOR-FEDERAL SECURITY APPROPRIATIONS FOR 1953

MONDAY, FEBRUARY 25, 1952

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D. C.

The subcommittee met, at 10 a. m., pursuant to recess, in room F–39, the Capitol, Hon. Dennis Chavez (chairman of the subcommittee) presiding.

Present: Senators Chavez, Thye, Knowland, and Ecton.

FEDERAL SECURITY AGENCY

PUBLIC HEALTH SERVICE

STATEMENTS OF DR. JOHN W. CRONIN, CHIEF, DIVISION OF HOSPITAL FACILITIES; CHARLES HILSENROTH, ASSISTANT TO THE CHIEF, DIVISION OF HOSPITAL FACILITIES; DR. OTIS L. ANDERSON, ASSOCIATE CHIEF, BUREAU OF MEDICAL SERVICES; DR. LEONARD A. SCHEELE, SURGEON GENERAL; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

GRANTS FOR HOSPITAL CONSTRUCTION

Senator CHAVEZ. The committee will come to order.

Doctor, before we proceed with page 83, "Salaries and expenses," I wonder if you could give the committee some advice or comment with reference to the mental institution under the Bureau of Public Health.

Dr. CRONIN. Mr. Chairman, the mental-health picture has direct reference to the Hill-Burton program in all hospitals, whether they are mental hospitals, TB hospitals, or general hospitals, and touches on this program because many of the States have planned mental-health facilities within the Hill-Burton program. Some of the States, because of a lack of total money or because of the cut-back of the funds which occurred in fiscal year 1951, are unable to do what they want to in the mental-health, TB, and chronic-diseases field.

1952 APPROPRIATION

Senator CHAVEZ. Let us see what the financial picture is as far as 1952 is concerned. As I recall, the Senate had either 90 million, or what had the Senate allowed?

Dr. CRONIN. Ninety-five million dollars.

Senator CHAVEZ. And then in conference we agreed to $82,500,000.

Dr. CRONIN. That is right, sir.

Senator CHAVEZ. That was $13,500,000 reduction.

Dr. CRONIN. That is right.

Senator CHAVEZ. That affected the general program, including mental health.

Dr. CRONIN. That did very definitely. It was important also in that picture to note that the costs of construction as a result of the international situation have increased in the country by about 25 percent. So that $82,500,000 which we acquired for the current fiscal year really is keeping the program at about $75,000,000 level, which it was cut back to. These States having planned for these mental-health facilities, TB, and so on, are unable to move into that area because of the general hospitals taking most of the money in the total program. When Congress passed the amendment, Public Law 380, on the 25th of October 1949, stepping up the contract authority on this program from $75,000,000 to $150,000,000, annually, for every year up through June 30, 1955, and for fiscal year 1950, the States were made an allotment on the basis of $150,000,000, and also in 1951, and they were planning on the $150,000,000 level.

HOSPITAL BEDS

Subsequent to that time the appropriation was cut in two by action authorized in the omnibus appropriation act. That meant that the States had to readjust their planning. They had to drop something. So many of them have not been able to get into the mental-health field, although we have in the program to date been able to build 9,073 mental-health beds in 84 projects. It is our area of biggest need. There is in the neighborhood of 329,000 mental-health beds needed out of the total deficiency of 874,000 beds.

STEEL ALLOCATIONS

Senator KNOWLAND. What would be the situation even if you had the funds in regard to steel allocations? There are any number of cases of schools in my State and other States of the Union where the local communities have their fund, they have the need, the children are going on a two- or three-shift-day basis, or meeting in old halls around, and though they have everything, including a let contract, they cannot proceed because they lack steel allocations. That must apply to hospital construction.

Senator CHAVEZ. I think that last week's conclusions of NPA kind of cleared some of those things. Are you acquainted with Mr. Fowler's statement?

Dr. CRONIN. Yes; I am, Mr. Chairman.

In answer to Senator Knowland's question, so far we have been able to handle the building very well through the combined efforts of the Public Health Service, the Division of Civilian Health Requirements, as the claimant agency for hospitals and health with NPA.

Senator KNOWLAND. Do you have any unfilled requirements for steel at all; and if so, how much?

Dr. CRONIN. There have been a few projects deferred during this particular period, that is, the third and fourth quarters of this current fiscal year.

Senator KNOWLAND. You say a few; how many?

Dr. CRONIN. There is a total of 15 deferred.

Senator KNOWLAND. And how much steel would be required for the 15?

Dr. CRONIN. It will vary with the size of the hospital. I am not acquainted with the individual projects requirements.

Senator KNOWLAND. I wonder if you could get them so it could go in at this point, the amount of steel that would be required to fulfill the needs of those 15 that have been deferred?

Dr. CRONIN. Senator Knowland, the 15 are based on this fact: Of the new construction only 15 of the 225 requesting permits were deferred, 12 to the fourth quarter of the year and 3 to the first quarter of the current year. For the new starts in the fourth quarter of 1951, 297 of 380 applications were approved. For the second quarter, allocations are now being made, and all of the previously pending applications will be approved. That has been further enhanced by the statement that came out in the paper last Friday morning, that the steel mills which were built under the early holding back of steel are now, by July 1953, getting into production and are adding to the total amount of steel available for hospitals and other buildings, and the increment which will take care of the hospital picture. So in my opinion, based on our experience in the operational program, if we did get up to $150,000,000 for hospital construction in this country, and we certainly need it with an 874,000-bed shortage, we would be able to go ahead and build those hospitals under the controlled-materials-plan program for steel, copper, and aluminum.

Senator KNOWLAND. If you will supply the facts, I am not quite as optimistic as they apparently are that you are going to get your steel. Would you give us a breakdown of the structural steel and reinforcing steel so we could get some facts as to what has held these up?

(The information is as follows:)

Amount of steel required to fulfill the needs of the 15 deferred projects:	*Tons*
Plate steel	35
Structural steel	168
Other steel	768
Total	971

MENTAL HOSPITALS

Senator CHAVEZ. The statement made by Mr. Fowler last Friday was significant. It was the first time within the program that they had made a definite statement that they would take care of the need.

Senator KNOWLAND. I missed that statement. Did that apply to schools also?

Senator CHAVEZ. Yes. The reason that I am asking for these comments, Dr. Cronin, is based on experience in New Mexico itself. I am worried not only in hospital beds for the general class of patients, but I am worried more so for ex-servicemen. I think I made the statement the other day, and I believe these are the figures—I have them in the office—back in New Mexico we had a lot of boys from Bataan. They looked fine. But all of a sudden, they are taken before the civil court,

and it was said that this boy was mentally ill. And they just treated him as Joe Doe, as a citizen. The fact he was an ex-serviceman was only incidental. They sent him to the local State institution which can hardly take care of the regular patients, so they have all become confined patients. They tell me that the general condition throughout the country is the same. Some poor mother comes up to me and says, "Can you get this boy up to Fort Lyons and Fort Worth where the Government has facilities for mentally ill?" But they are filled up. I say, "No, we have to keep him in that place." That is why I was so deeply interested in your comments as to what help was possible in the way of mental institutions.

What is the general situation in that respect?

Dr. CRONIN. There is a great need, as you have so correctly put it, for mental health beds, throughout the country. In New Mexico particularly, there is a great need, as you have described it.

Furthermore, under the Hill-Burton program in New Mexico, they will be unable to add any mental health beds whatsoever with this program operating at the level of $75,000,000 per year. The current legal authority terminates this program, as of June 30, 1955.

Senator CHAVEZ. I mention New Mexico because it happens that I represent, in part, the State.

CONSTRUCTION CUTBACK

Dr. CRONIN. The other States are in nearly the same situation, because they have planned their programs on the basis of $150,000,000 annually, and they had to cut them back to $75,000,000. The $75,000,000 takes care of the general hospital picture, whereas the mental health hospital picture is the one of greatest need, and is not able to be taken care of due to the lack of money. Any additional money over the $75,000,000 which Congress might see fit to appropriate, probably would go into mental as well as TB and some chronic hospitals in many of the States because their advisory councils are aware of the problem. The State agency directors, in their meetings with us, have always pointed out that they would like to balance the categories of mental, general, TB, and chronic beds. I think it is only normal that a State advisory committee, and the people of the community, would think in terms of their general hospitals first. That is a normal thing. But as the people of the country become more cognizant of the mental health problem facing us, and currently it is a serious one, that these advisory councils which are the same people, would be indicating to the planning agencies of the States that they would want some of this Hill-Burton money moving into the mental health facilities.

Senator CHAVEZ. I understand why they would be interested in the general hospitals, and I am for the program. However, I do feel that the committee, and the citizen owes possibly a greater duty to the mentally ill than to the generally sick. When a person who is mentally correct is suffering, he can complain, he can write you a letter, and ask you to do this and that. But the poor fellow who is mentally ill can do nothing at all. I feel, and I think it is human, and I think we owe them a little more concern at least to look into the problems, because no one takes an interest in them at all, as far as their problems are concerned.

Dr. CRONIN. Mr. Chairman, in line with this problem many of the States have planned to use the Hill-Burton money, except that it is all planned, in most instances, to add facilities within the general hospital, to make the general hospital more truly general, and to have intensive treatment areas as part of the general hospital for mental health cases. These are usually short-time diagnostic treatment areas, and if the patient needs a more lengthy stay in a hospital, then he is sent on to the State mental health hospitals, and they handle them to the best of their ability. But it is in general hospitals with mental facilities as part of their total program that a great deal of good can be done. I know because I have had psychiatric training and I know the situation in regard to general and mental hospitals.

HOSPITAL BEDS FOR VETERANS' MENTAL HEALTH PROGRAM

Senator CHAVEZ. Doctor, did not Congress pass a bill some time ago authorizing and appropriating some money that has been frozen for this particular purpose? What was that piece of legislation?

Dr. CRONIN. Do you have reference to a bill that was passed in reference to veterans' hospitals?

Senator CHAVEZ. I think so. What was the situation with respect to that?

Dr. CRONIN. I am not fully aware of it.

Senator CHAVEZ. What about you, Dr. Scheele? Do you recall?

Dr. SCHEELE. I believe you refer to the fact that the Congress in 1949 authorized the construction of 16,000 more beds in the Veterans' Administration program than are presently planned by them. A few of these may have been beds for neuropsychiatric patients. The authorization has not been used.

Senator CHAVEZ. What was the amount authorized?

Dr. SCHEELE. Something in excess of $200,000,000, I believe, but I am not sure.

Senator CHAVEZ. Do you remember what Congress did that? Was it the present Congress?

Dr. SCHEELE. Initially the Eighty-first Congress. It was in the present Congress, I believe, that the House passed a bill on this subject but the Senate has not acted.

Senator CHAVEZ. Last session?

Dr. SCHEELE. Yes, last session.

Senator CHAVEZ. I wish at your convenience that you would have your staff get us that bill, whatever it was.

Dr. SCHEELE. With your permission, Senator, I think that falls more appropriately within the range of interest and action of the Veterans' Administration, rather than the Public Health Service, although, of course, we are interested in mental health.

Mr. STEPHENS. I will get it for you, sir.

Senator CHAVEZ. Thank you.

(The information is as follows:)

[H. R. 313, 82d Cong., 1st sess.]

AN ACT To provide for the construction of certain Veterans' Administration hospitals, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Administrator of Veterans' Affairs is directed to proceed with the construction of the additional facilities to provide

approximately 16,000 additional hospital beds previously approved by the President, authorization for which was dropped in the Budget estimates for the fiscal year 1950, as presented to the Congress by the President, pursuant to determination by the President to cancel or reduce the size of certain hospital projects. The facilities which shall be constructed pursuant to this Act are as follows: A two-hundred-and-fifty-bed tuberculosis hospital at Americus, Georgia; a five-hundred-bed general medical and surgical hospital at Charlotte, North Carolina; a five-hundred-bed general medical and surgical hospital at Chattanooga, Tennessee; a two-hundred-bed addition to the Veterans' Administration hospital at Columbia, South Carolina; a two-hundred-and-fifty-bed general medical and surgical hospital at Decatur, Illinois; a five-hundred-bed tuberculosis hospital at Detroit, Michigan; a two-hundred-bed general medical and surgical hospital at Duluth, Minnesota; a five-hundred-bed neuropsychiatric hospital at El Paso, Texas; a one-thousand-bed neuropsychiatric hospital at Gainesville, Florida; a two-hundred-bed general medical and surgical hospital at Grand Rapids, Michigan; a two-hundred-bed general medical and surgical hospital at Greenville, South Carolina; a two-hundred-bed general medical and surgical hospital at Harrisburg, Pennsylvania; a one-thousand-bed neuropsychiatric hospital at Houston, Texas; a two-hundred-bed general medical and surgical hospital at Klamath Falls, Oregon; a one-thousand-bed neuropsychiatric hospital at Memphis, Tennessee; a two-hundred-bed general medical and surgical hospital at Mound Bayou, Mississippi; a one-thousand bed general medical and surgical hospital at New York, New York, County of Queens, New York City, New York; a seven-hundred-and-fifty-bed neuropsychiatric hospital at Norman, Oklahoma; a nine-hundred-and-twenty-one-bed neuropsychiatric hospital at Salisbury, North Carolina; a two-hundred-bed general medical and surgical hospital at San Diego, California; a one-hundred-bed general medical and surgical hospital at Tallahassee, Florida; a one-hundred-bed general medical and surgical hospital at Thomasville, Georgia; a one-thousand-bed neuropsychiatric hospital at Toledo, Ohio; and a two-hundred-bed general medical and surgical hospital near Tupelo, Mississippi.

The hospital projects which shall be increased in size pursuant to this Act are as follows: General medical and surgical hospital at Atlanta, Georgia, from five hundred beds, to seven hundred and fifty beds; general medical and surgical hospital at Chicago, Illinois, from five hundred beds to one thousand beds; general medical and surgical hospital at Cincinnati, Ohio, from five hundred beds to seven hundred and fifty beds; general medical and surgical hospital at Cleveland, Ohio, from five hundred beds to one thousand beds; neuropsychiatric hospital at Cleveland, Ohio, from one thousand beds to one thousand two hundred and fifty beds; general medical and surgical hospital at Kansas City, Missouri, from five hundred beds to seven hundred and forty-five beds, consisting of two hundred and fifty tuberculosis beds and four hundred and ninety-five general medical and surgical beds; general medical and surgical hospital at Louisville, Kentucky, from five hundred beds to seven hundred and fifty beds; general medical and surgical hospital at Oklahoma City, Oklahoma, from five hundred beds to one thousand beds; general medical and surgical hospital at Philadelphia, Pennsylvania, from five hundred beds to one thousand beds; general medical and surgical hospital at Pittsburgh, Pennsylvania, from seven hundred and fifty beds to one thousand and two hundred beds; neuropsychiatric hospital at Pittsburgh, Pennsylvania, from one thousand beds to one thousand two hundred and fifty beds; general medical and surgical hospital at Saint Louis, Missouri, from five hundred beds to one thousand beds; general medical and surgical hospital at Syracuse, New York, from five hundred to one thousand beds; and general medical and surgical hospital at Washington, District of Columbia, from five hundred beds to seven hundred and fifty beds.

SEC. 2. The Veterans' Administration shall make a survey of the abandoned Army and Navy hospitals and include in its program those it is possible to utilize.

Passed the House of Representatives June 20, 1951.

Attest: RALPH R. ROBERTS, *Clerk.*

SALARIES AND EXPENSES, HOSPITAL CONSTRUCTION SERVICES

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$1,257,000	$1,166,465	$1,217,000
Proposed supplemental due to pay increases		72,500	
Total available for obligation	1,257,000	1,238,965	1,217,000
Unobligated balance, estimated savings	−9,449		
Obligations incurred	1,247,551	1,238,965	1,217,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Operations and technical services activities	$1,149,123	$1,140,579	$1,117,311
2. Administration	98,428	98,386	99,689
Obligations incurred	1,247,551	1,238,965	1,217,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	192	191	191
Full-time equivalent of all other positions	2		
Average number of all employees	192	176	176
Average salaries and grades:			
General schedule grades:			
Average salary	$5,318	$5,949	$5,918
Average grade	GS–8.5	GS–8.6	GS–8.6
Crafts, protective, and custodial grades:			
Average salary	$2,412	$2,765	$2,818
Average grade	CPC–3.0	CPC–3.0	CPC–3.0
Personal services:			
Permanent positions	$1,061,153	$1,085,896	$1,084,135
Part-time and temporary positions	7,495		
Regular pay in excess of 52-week base		3,769	3,765
Total personal services	1,068,648	1,089,665	1,087,900
Travel	84,105	90,000	80,000
Transportation of things	3,984	6,000	3,500
Communication services	3,179	3,400	3,200
Printing and reproduction	8,641	15,000	9,000
Other contractual services	46,158	9,500	9,500
Supplies and materials	14,001	15,000	14,000
Equipment	18,438	9,900	9,400
Taxes and assessments	397	500	500
Obligations incurred	1,247,551	1,238,965	1,217,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$123,327	$159,595	$95,815
Adjustment in obligations of prior years	304		
Obligations incurred during the year	1,247,551	1,238,965	1,217,000
	1,371,182	1,398,560	1,312,815
Deduct:			
Unliquidated obligations, end of year	159,595	95,815	57,000
Obligated balance carried to certified claims account	2,547		
Total expenditures	1,209,040	1,302,745	1,255,815
Expenditures are distributed as follows:			
Out of current authorizations	1,112,535	1,075,000	1,160,000
Out of prior authorizations	96,505	159,595	95,465
Out of anticipated 1952 supplemental for pay increases		68,150	4,350

Senator CHAVEZ. Now, "Salaries and expenses, hospital construction service," page 83. Who is going to discuss that?

Dr. CRONIN. I will. Mr. Chairman, this budget estimate within the ceiling request is $1,217,000 and 191 positions to carry out the activities at the Federal level under the Hill-Burton program. This provides for no increase in personnel over the present fiscal year. As a matter of fact, it provides for $21,965 less than the amount available during the fiscal year 1952. I think it is important to point out here that the operation of the Hill-Burton program by the Federal Government is costing less than 1½ percent in its relationship to the total request of $75,000,000. In our opinion it is absolutely essential to continue furnishing leadership, guidance, and direction to the States and communities under this program. We think it would be unwise and a mistake to reduce this service to a lower level. We cannot hope to adequately protect the Federal investment without assuring ourselves of sound planning and assisting the communities and States to do this sound planning for hospitals.

Many communities feel that they would like to have a hospital and civic pride sometimes steps forward, and it is here that we are able to effect a more practical approach along with the hospital planning representations of States working with the community. The States are very much aware of the situation.

Senator KNOWLAND. How many applications have you processed this last year?

Dr. CRONIN. In the last year we have processed in excess of 250 applications.

Senator KNOWLAND. What is your estimate for next year?

Dr. CRONIN. We think it will be about the same.

Senator KNOWLAND. Could you give us the figures for the last several years? Has there been an increase, a decrease, or holding level since the Hill-Burton Act became operative?

HOSPITAL PROJECTS APPROVED

Dr. CRONIN. We are hitting a plateau of our greater number of projects. By that I mean since the beginning of the program—and the law was passed August 16, 1946—we have had 1,700 projects approved. At the present time 775 are completed and in operation, 760 are under construction, 165 are in the planning stages. The workload of our people is not finished when the project is approved, because that project has to get under construction. It takes about a year in most instances to proceed from the early planning to actual finishing of the construction of that hospital. Sometimes a year and a half, depending on the size of the hospital, if it is a large institution is required.

After that we have to assist the communities in changing some of the plans that they found needed changing because of different little items that come up. So that our staff works with the States and the communities in that particular endeavor in all stages of construction and planning.

PROCEDURE FOR FEDERAL HOSPITAL AID

Senator KNOWLAND. Do you merely pass on the plans, do you furnish plans or could you recite for the record briefly the process that it goes through? The community A wants a hospital. They think they have complied with the provisions of the act. What do you have to do in this process?

Dr. CRONIN. The community A, Senator, would go to their health department, which in all but eight States is the designated agency. In the eight States it is a separate commission established for the purpose of hospital survey and construction. The representatives of Community A would say to the health department, "We want to build this 100 bed hospital that you have approved. These are our plans." The health department sends the application forward to one of our 10 regional offices where we review those plans for construction to see if the plan adheres to the law, the Hill-Burton Act.

Senator KNOWLAND. The State agency itself does not do any reviewing of the plan?

Dr. CRONIN. The State agency reviews the application to see if the application meets the requirements of their laws. Nearly all States had to pass legislation to permit the State to participate administratively, and sometimes financially. Fifteen States participate financially with State aid. We check to see if it coincides with the Federal plan. Then the community is advised to come up with their share of the money. That is on a matching basis. It varies from one-third Federal participation to two-thirds Federal participation. That participation percentage is at the discretion and is determined by the State, and not by the Federal Government. The community also would have to come up with sufficient money to defray the anticipated operating deficit for a period of 2 years. This is figured out on a formula basis. Those plans are submitted to the State agency, and they review them and approve them, and then submit them to one of our regional offices, the one in question which has jurisdiction over the area involved. We review them to see that the proper community percentage of funds is available as the community says it would be.

Then the community is advised that they must show clear title to the property. They must also show three geological sample reports that the substrata on which the hospital is to be built will hold the hospital. Then the project part three is approved. Then the community comes up with their construction plans, their blueprints and mechanical details, and so on, which is checked by the State to see if the building as it will be erected will meet the fire laws, the different ordinances and codes of the State. It is checked by our regional office technical people to see that it meets with the minimum requirements set up in Public Law 725, and its amendments.

It is upon completion of that check and final approval that the project application is signed by the State, representing the governor, signed by our regional staff representative for the Surgeon General, and signed by the head of the building group or community sponsoring group. That becomes a contract document, and the money is set aside in the Treasury of the United States for that project. After that hospital is 25 percent completed, the sponsoring group requests of the State an inspection for payment of services. The States send

out their inspector, usually a construction engineer, and he checks the hospital. Then a certification is given to the Federal Government through our regional office that this project is in accordance with the recommendations made, and the specifications as outlined. Federal payment in the amount of 25 percent of the Federal share is then made available to the applicant.

I should say none of these architectural plans are Federal plans. They are all local community architects hired by the community, and not the Federal Government.

One of the big jobs we have is to assist them. This assistance is sought daily by the architects of the country in regard to the modern and newer methods of functional hospital design as we are able to gleam them from the 1,700 projects throughout the country, and throughout the world in hospital buildings. Functional type of design, which can be used for the convenience of the patient, to get him better patient care, and the convenience of the hospital staff, so they are not worn out by walking long corridors and have their various facilities conveniently available to them to render better care to the patient, is very important. One might call that research. I think it is assistance we render on the Federal level at the request of the States and at the request of these local and private architects that is so helpful in assuring sound planning. The American Institute of Architects has supported this relationship.

APPROVAL OF PROJECT

Senator KNOWLAND. Is all this Federal approval done on the regional level? Does any of that get appealed to Washington, or what is the function of the Washington office?

Dr. CRONIN. The Washington office determines the policy, methods, and procedure of the program. It carries on the basic research in the technical field and assists the States to help the communities to develop the community plans for hospitals. Our program is decentralized as far as it is possible, and it is entirely our wish to keep it so, so that, at the Washington level, projects are not approved. We feel that the people in the States and the people in the regions are closer to the projects and could approve them much more easily and wisely than we could. We accord consultative services upon request usually on technical and community planning problems.

REGIONAL OFFICES

Senator KNOWLAND. It may show up in here. I have not had a chance to examine this closely. But how many of these people in an administrative capacity do you have in the Washington office, and how many in the several regions? How many regions do you have?

Dr. CRONIN. We have 10 regions and a headquarters staff.

Senator KNOWLAND. Could you give us a breakdown as to the number?

Dr. CRONIN. We have that available.

Senator CHAVEZ. I think you inserted that in the record last week.

Dr. CRONIN. That is right. We can put it in this time.

(The information is as follows:)

Staff required in the operation of the Hill-Burton program

Operational staff:	
Departmental	[1] 88
Field	81
Total	169
Administrative Staff:	
Departmental	22
Grand total	191

[1] Includes specialized professional technical employees who are utilized in dual capacity at the departmental level and for field operations, upon request, when complicated problems arise. This would include electrical, structural engineers, equipment specialists, dietary, pharmacy, and other hospital services consultants.

DEFENSE ACTIVITIES

Dr. CRONIN. In the work of the division we have made a considerable contribution toward the mobilization effort, toward such organizations as NPA and Civil Defense, in providing assistance in basic planning in those particular agency activities. Currently, if any more time is given, it would be definitely hindering the carrying out of the operations of the Hill-Burton program. We would like to continue this program at least on the level that it is now operating without any further personnel reduction, because we think it is vital to the defense of the country and to the long-range planning of our needed hospital facilities throughout the country.

Senator CHAVEZ. The estimate for this particular item for 1953 is a little more than in 1952.

Dr. CRONIN. No; it is $21,965 less than it was in fiscal year 1952. There is no increase in positions.

Senator CHAVEZ. The amount that was in the estimate, is that the amount that you requested from the Budget Bureau?

REDUCTIONS IN SALARIES AND EXPENSES

Dr. CRONIN. When we made our request to the Budget Bureau, our program was based first on a program of $150,000,000, and along with that we were requesting people that would be needed to operate the program. There was a reduction in the program from $150,000,000 to $75,000,000, and a reduction in the amount of money for salaries and expenses to the amount stated here.

Senator KNOWLAND. What was the amount?

Dr. CRONIN. $1,306,000.

Senator CHAVEZ. Anything further, gentlemen?

Senator KNOWLAND. So I am clear on this, was $1,306,000 your request for administrative to cover a $150,000,000 program rather than the $75,000,000 program, or was your $1,306,000 your estimate of what you required to conduct the $75,000,000 program?

Dr. CRONIN. We submitted an (A) and (B) budget; in the (A) budget it was $1,225,000 before the pay-act increase, which would run it to $1,306,000. Our (B) budget was $1,758,000 submitted before the pay act, and that included $1,200,000 for awards and demonstrations in research and studies in better utilization of hospital facilities throughout the country, as authorized by Public Law 380 of the

Eighty-first Congress. Since we did not receive funds for that purpose last year we were not permitted to include this item this year. However, we did request it, and I am sure will request it again, because there is a terrific need of better utilization of hospital services.

Mr. HARLOW. Senator, our $1,306,000 was based on the $75,000,000 program.

Senator KNOWLAND. Do you have an estimate of what it would require if you had the $150,000,000 program?

Mr. HARLOW. That was increased in the larger figure Dr. Cronin gave us.

Mr. STEPHENS. About $200,000 besides the awards and indemnities in the research work.

Senator KNOWLAND. What I was trying to bring out was that the doubling of the program would not require a doubling of the administrative overhead in the situation. I think that is important to have in the record.

NEW DRUG CURES DISCUSSED

Senator CHAVEZ. Dr. Scheele, at this point, for the benefit of Senator Knowland and myself, I wish you would briefly comment on the newspaper stories of last week of a discovery of some two new drugs for TB ailments.

Dr. SCHEELE. I am afraid we cannot add a great deal to the newspaper stories, some of which were as comprehensive as are the published scientific reports of the moment. Two chemical-manufacturing firms have been searching for drugs which would be effective against tubercle bacilli. They were actually searching for chemicals of the type they have found. During the past several months, largely in two clinical centers, one the Seaview Hospital on Staten Island in New York, and the other, New York Hospital, trials have been run on approximately 100 patients on advanced pulmonary tuberculosis. These investigations were done following extensive work on animals to determine whether or not these drugs would be toxic. The general estimate to date is that the drugs are safe and are not any more toxic than dihydrostreptomycin, which has been found to have value in treatment of certain forms of tuberculosis.

The investigators who have done this work are among the most competent in the country, and they have found something which we hope will be of real value. On the other hand, as in all research, until more investigations have been done and more patients with tuberculosis have been treated, we cannot make a final evaluation of these new drugs. The drugs are fairly simple to make, but production facilities for making them on a large scale do not currently exist. There will be immediate large-scale demand and the manufacturers will be unable to supply them. This is one of the problems that sometimes comes with early announcement of results of preliminary research.

As I understand the situation, by June or July it will be possible to produce fairly large quantities of these drugs and if the early research findings hold up it will be possible to use these drugs across the country.

Yesterday the Public Health Service particpated in a meeting in New York with members of the National Tuberculosis Association, the American Trudeau Society, a number of other professional

societies, and voluntary health agencies interested in tuberculosis, at which research results to date and future plans for study of these drugs were discussed. I have not as yet had a report from the member of our staff who attended that meeting, Dr. Robert Anderson, who appeared before you on our tuberculosis program, and I do not know what conclusions were reached.

It may be necessary, if one is to compact and save time in the study of these drugs, to set up a program like the one that was set up to study streptomycin. You will recall that in about 1947 the Public Health Service presented a special program in which we asked for funds, and you granted funds, to set up large-scale clinical trials on streptomycin on a standardized basis across the country. It was through that program we got the early answers to the real value (and hazards) of streptomycin. It is possible, and I cannot predict this with certainty until I talk to Dr. Anderson and learn the results of the meeting in New York, that we should move rapidly into a wide-scale program to study these drugs. There would be voluntary effort to correlate the work to be done so that the standards would be the same in all institutions. Then, when the end results of the studies in the institutions are brought together, they would be comparable. It would be unfortunate if a great deal of unstandardized research were to go on in this field.

As of the moment, I think we may take an optimistic view on the value of these new drugs, and be very hopeful that the scientists have come across something which may help revolutionize the care and treatment of patients with tuberculosis.

Senator CHAVEZ. Thank you, Doctor. I understand, Dr. Cronin, there is a group of witnesses from Atlanta.

Dr. CRONIN. Yes, sir.

Senator CHAVEZ. Dr. Andrews, will you come forward, please? You may proceed, Doctor.

CONTROL OF COMMUNICABLE DISEASES

STATEMENTS OF DR. JUSTIN M. ANDREWS, OFFICER IN CHARGE, COMMUNICABLE DISEASE CENTER; DR. LEONARD A. SCHEELE, SURGEON GENERAL; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$6,165,000	$5,915,747	$5,972,000
Transferred to "Salaries and expenses, defense production activities, Federal Security Agency," pursuant to Public Law 253		−25,000	
Adjusted appropriation or estimate	6,165,000	5,890,747	5,972,000
Proposed supplemental due to pay increases		287,000	
Reimbursements from other accounts	158,435	518,323	226,507
Total available for obligation	6,323,435	6,696,070	6,198,507
Unobligated balance, estimated savings	−34,423		
Obligations incurred	6,289,012	6,696,070	6,198,507
Comparative transfer from "Salaries, expenses, and grants, National Heart Institute, Public Health Service"	54,527		
Total obligations	6,343,539	6,696,070	6,198,507

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
Direct Obligations			
1. General disease-prevention and control	$3,877,519	$4,272,050	$4,212,000
2. Specific disease-prevention and control	1,771,311	1,383,097	1,237,400
3. General epidemic and disaster aid	16,424	40,000	40,000
4. Administration	519,850	482,600	482,600
Total direct obligations	6,185,104	6,177,747	5,972,000
Obligations Payable Out of Reimbursements From Other Accounts			
1. General disease-prevention and control	158,435	319,223	226,507
3. General epidemit and disaster aid		199,100	
Total obligations payable out of reimbursements from other accounts	158,435	518,323	226,507
Total obligations	6,343,539	6,696,070	6,198,507

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Summary of Personal Services			
Total number of permanent positions	1,480	1,411	1,318
Full-time equivalent of all other positions	8	9	9
Average number of all employees	1,247	1,194	1,137
Average salaries and grades:			
General schedule grades:			
Average salary	$3,520	$3,931	$3,908
Average grade	GS-5.1	GS-5.2	GS-5.1
Crafts, protective, and custodial grades:			
Average salary	$2,581	$2,947	$3,053
Average grade	CPC-3.9	CPC-4.0	CPC-4.0
Ungraded positions: Average salary	$2,044	$3,027	$3,027
Personal service obligations:			
Permanent positions	$4,696,158	$4,923,741	$4,708,145
Part-time and temporary positions	25,139	28,500	28,440
Regular pay in excess of 52-week base		13,645	12,855
Payment above basic rates	22,692	9,317	9,577
Total personal service obligations	4,743,989	4,975,203	4,759,017
Direct Obligations			
Personal services	4,643,536	4,781,080	4,629,890
Travel	228,906	234,200	229,000
Transportation of things	79,181	69,400	68,500
Communication services	49,697	49,500	49,100
Rents and utility services	152,212	79,650	79,200
Printing and reproduction	15,893	16,400	16,400
Other contractual services	82,024	78,100	73,200
Services performed by other agencies	6,056	5,000	5,000
Supplies and materials	588,253	508,607	471,200
Equipment	335,601	306,600	301,600
Refunds, awards, and indemnities		1,000	1,000
Taxes and assessments	5,185	9,650	9,350
Unclassified (general epidemic and disaster aid)		40,000	40,000
Subtotal	6,186,544	6,179,187	5,973,440
Deduct charges for quarters and subsistence	1,440	1,440	1,440
Total direct obligations	6,185,104	6,177,747	5,972,000
Obligations Payable Out of Reimbursements From Other Accounts			
01 Personal services	100,453	194,123	129,127
02 Travel	5,782	39,700	8,800
03 Transportation of things	809	9,100	900
04 Communication services	261	5,300	100
05 Rents and utility services	94		
07 Other contractual services	13,940	38,900	5,700
08 Supplies and materials	25,734	200,700	81,180
09 Equipment	11,269	30,500	700
15 Taxes and assessments	93		
Total obligations payable out of reimbursements from other accounts	158,435	518,323	226,507
Total obligations	6,343,539	6,696,070	6,198,507

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$1,274,672	$994,024	$737,247
Obligations incurred during the year	6,289,012	6,696,070	6,198,507
	7,563,684	7,690,094	6,935,754
Deduct:			
Reimbursable obligations	158,435	518,323	226,507
Unliquidated obligations, end of year	994,024	737,247	687,000
Adjustment in obligations of prior years	52,139		
Obligated balance carried to certified claims account	16,578		
Total expenditures	6,342,508	6,434,524	6,022,247
Expenditures are distributed as follows:			
Out of current authorizations	5,458,592	5,165,000	5,285,000
Out of prior authorizations	883,916	994,024	725,747
Out of anticipated 1952 supplemental for pay increases		275,500	11,500

PROGRAM AND PERFORMANCE

This program supplements and supports the activities of State and local health departments in the control of communicable and preventable diseases other than venereal disease and tuberculosis.

1. *General disease prevention and control.*—This includes epidemiological services, laboratory technological services, technical vector and control services, general veterinary public-health activities, production of training materials, and training.

2. *Specific disease prevention and control.*—The specific diseases include poliomyelitis, encephalitis, and other virus diseases, diarrheal diseases, typhus fever, plague and other rat-borne diseases, and "Q" fever. Malaria-control activities have been discontinued; minimal surveillance will be maintained in conjunction with studies of other diseases. The estimate also reflects a decrease in typhus fever control.

3. *General epidemic and disaster aid.*—A small emergency fund is utilized to supplement State and local facilities in connection with serious disasters or outbreaks of disease.

4. *Administration.*

COMMUNICABLE DISEASE CENTER

Dr. ANDREWS. I would like very briefly to review our activities and accomplishments last year, if I may, Senator Chavez.

This item, "Control of communicable diseases," supports the activities of the Communicable Disease Center, which is headquartered in Atlanta, Ga. It exists to help the States control communicable and certain preventable diseases not provided for elsewhere, and it provides epidemic and disaster aid when requested by State health officers. These activities are accomplished by developmental research, by operational assistance, and demonstrations and training. During 1951 these activities were carried on in 40 different States, in Alaska, Hawaii, and Puerto Rico.

1952 APPROPRIATION

Our 1952 appropriation for control of communicable diseases was $5,915,747. This excluded $287,000 proposed for recent civil-service pay increases, and we expect to have $25,000 transferred to another appropriation. That leaves a net total of $6,177,747 appropriated or proposed for availability in fiscal 1952.

1953 BUDGET ESTIMATE

Our estimate for fiscal 1953 is $5,972,000 or $205,747 less than is proposed for fiscal 1952. This saving is effected by decreased requests, first of all, in the area of general disease prevention and control amounting to $60,050, and secondly in the area of specific malaria and typhus control amounting, all told, to $145,697.

All of the other projects proposed for 1953 are being held at 1952 levels. I would like to emphasize the fact that, because of increasing costs, such activities as the preparation of audio-visual training aids, laboratory diagnostic services, et cetera, will take an increasing proportion of the funds, so that we will not be able to continue the program at exactly the same level.

MALARIA CONTROL

The malaria-control activities which have been supported for 16 years continuously at State, local, and Federal levels are being stopped this next year. These Government-sponsored programs have helped substantially to bring about a very real decline. In 1936, there were something like 105,000 reported cases of malaria in this country. In 1950, the number was less than 2,300. And, actually, we have good reason for believing that very few of the 2,300 were really newly acquired parasite, positive cases of malaria.

The repatriation in 1951 of several thousand Armed Forces personnel infected overseas, principally in Korea, has increased the possibility of reestablishing malaria in this country. Many of these individuals have been separated from the Armed Forces and are no longer under military control. The Armed Forces have done, I think, everything that could be done to try to nullify their infectivity. But in spite of that, there have been relapses, that is, malaria relapses, among these returnees reported from all but two States in 1951. We believe that the spread of malaria from these sources can be prevented, and we have made arrangements, particularly in 15 States where malaria-eradication activities have been centered, to provide personnel to search for and to investigate all of the reported cases of malaria, and to see that the premises inside homes of proven cases are sprayed with DDT and all other homes within a mile radius of these proven cases. This is a program which we think should be supported federally as long as the importation of infection by Armed Forces personnel, by immigrants, or by others continues.

Senator CHAVEZ. When is that going to happen?

Dr. ANDREWS. I do not know, sir. It is going to be a long time, I am afraid. But the program is relatively cheap to maintain, actually, in comparison to what malaria cost in this country some years ago—it seems almost trivial—because I calculate that the program could be financed for 1,250 years for what malaria was reckoned in 1938 to cost this Nation in a single year.

Senator CHAVEZ. What about displaced persons or immigrants that come in from anywhere?

IMMIGRANT LABOR

Dr. ANDREWS. Our principal source of concern has not been displaced persons from Europe, but more labor imported from Mexico. Some of that has come from malaria areas of Mexico, and as long as they were held in the West and Northwestern States, the chances of transmission were not great. But last year these Mexican laborers were picking cotton in Georgia and Alabama where malaria could be easily transmitted if they have it. We have some small studies under way trying to ascertain the degree of infection existing among the Mexican immigrants.

Senator CHAVEZ. Do climatic conditions have any effect on malaria?

Dr. ANDREWS. Yes, sir. The temperature limits the geographic distribution of malaria because it determines whether or not infection can go forward in the mosquito. The mosquito takes the temperature of its surroundings. It does not have a regulator like we do in our bodies.

Senator CHAVEZ. What is the amount of malaria in the Southwest, west Texas, for instance?

Dr. ANDREWS. There is very little in west Texas, as far as we know, or in Arizona. There has been a small amount in New Mexico. But I think that has been virtually extinguished.

Senator CHAVEZ. What about southern California?

Dr. ANDREWS. I do not know of any cases which originated there. Actually the number of cases of malaria which appear to have originated in this country as new cases in the last few years, you can count on the fingers of your two hands.

MALARIA INFECTIONS IN KOREA

Senator CHAVEZ. Why are the boys in Korea, which is supposed to be a cold country, at least in winter, being infected by malaria? Is it water and things of that nature?

Dr. ANDREWS. Most of the malaria was contracted during the early part of the fighting there in the late summer and early autumn. They contracted vivax malaria there, apparently in large quantities. There have been some seven or eight thousand recorded relapsing cases returned to this country. They are not troubled with it over the winter months, but in the springtime they start relapsing again just like our southern population used to do—they looked forward to the spring chills and fever, which is associated with the annual occurrence of vivax malaria.

Senator CHAVEZ. What is the Veterans' Administration doing about taking care of the boys?

Dr. ANDREWS. They are taking care of the cases presented to them and treating them as best they can.

Senator CHAVEZ. But you say they are probably now in their civilian capacity. Are they discharged as cured?

Dr. ANDREWS. They are discharged as cured, but it is almost impossible to guarantee that they will not have relapses of this particular type of malaria. It is noted for these clinical reactivations which occur months after the patients are apparently well.

Senator CHAVEZ. Just for your opinion, suppose an ex-serviceman who went through that period of illness, and when he came back he was infected with malaria, which certainly was service connected, and after the army gives him his discharge and says, "You are in good health," it occurs on him again, would you think it is still service-connected?

Dr. ANDREWS. Yes, sir. I should assume it to be more likely service-connected than any other origin, because there is certainly no transmission of malaria in this country now.

Senator CHAVEZ. Anything further, Doctor?

TYPHUS FEVER CONTROL

Dr. ANDREWS. Typus fever control has reduced about the same proportions that malaria has. This disease has been a plague to man in the Southeastern States. The number of cases in 1944 was 5,338, and they have come down to less than 700 in 1950. This has been accomplished by dusting rat runs and harborages with DDT, which is a Public Health Service development, in addition to the conventional method of rat killing and rat excluding.

INFANT PARALYSIS

Our research on poliomyelitis——

Senator CHAVEZ. What is that in simple language?

Dr. ANDREWS. Infantile paralysis, sir; trying to find how this disease gets around in the absence of epidemics. For some years we have been studying the possible relationships of flies in connection with the spread of this disease. Thus far we are unable to convince ourselves that they are a major factor in the transmission, although it is undoubtedly true that the virus of the disease can be received from flies during epidemics. We are sampling regularly the flies in the sewage in which the virus can also be found, trying to determine where this is and how it behaves between epidemics.

The National Foundation for Infantile Paralysis is interested in the same problem, and is assisting us with these studies. We are hoping that this next summer we may be of assistance to them in testing gamma globulin constituents of the blood which have a high proportion of antibodies against poliomyelitis and other diseases.

SLEEPING SICKNESS

Another disease on which we are working, particularly in the Western States, is encephalitis. That is a form of sleeping sickness which affects man and also horses. We found that it is reservoired in nature by a variety of species of birds, and it is transmitted from the birds to man and to horses by means of mosquitoes. So we have been intensifying our efforts in trying to develop better methods of preventing the production of these known mosquito vectors.

JAUNDICE

The disease, next to infantile paralysis on which we get most of our calls from the State health officials, is infectious hepatitis, or epidemic jaundice. This is a major military disease but not a cause of much

concern among civilian populations until very recently. Now it occurs in great frequency. There were 33 outbreaks reported this last year, and we are now getting something like 600 cases per month reported in this country. We were able to test a method devised by one of our consultants, namely, the administration of gamma globulin, of which I spoke just a moment ago, and it is very, very effective in preventing the spread of this infection when given in even small quantities. It is one-hundredth of a cubic centimeter to 1 pound body weight.

Senator CHAVEZ. That is to prevent the spreading. What could you do to prevent the disease itself?

Dr. ANDREWS. There is no treatment other than bed rest and good nursing that we know of to modify the course of the infection once started. Gamma globulin will prevent the start of it. In a State neighboring yours, the State of Arizona, we attended an epidemic the early part of this year where 400 little Indian children were sick in a little community of not more than eight or nine hundred individuals, all told. We immunized 450 of the well individuals and only one person subsequently came down with infectious hepatitis. So we think we stopped the spread of the infection pretty effectively there because it was due to go much further, I am sure.

INSECTICIDES

We continue our search for more effective and safer economic poisons, insecticides, and rodenticides, and are studying particularly the problem of acquired resistance. Flies, particularly, have a tendency to become immune to DDT and related compounds. We now have a number of new chemicals which, used with DDT, will circumvent the development of this resistance. We do not know, however, but what, ultimately, the flies may become resistant to that, too, so we have to keep an eye out to see what can be done when that happens.

We are also interested, of course, in the immediate and long-time hazard of the application of these insecticides, first of all to the operators who apply them, secondly to the occupants of homes where they are used, and thirdly, to the persons who consume fruit and vegetables which may have been sprayed by these substances.

I think I told you that we have established a laboratory in the State of Washington, in the middle of the apple industry, to do work on this particular subject.

Senator ECTON. Mr. Chairman, may I ask the doctor something right there?

Senator CHAVEZ. Senator Ecton.

Senator ECTON. I am very much interested in the result of that type of application of these insecticides. We all know that there are parasites that prey upon these insects, that are very dangerous to the human race. These insecticides also destroy all these parasites, too, do they not?

Dr. ANDREWS. They destroy a large number of them, yes, sir.

Senator ECTON. Have you made any determination as to which your insecticide is most effective upon, the parasite or the actual insects?

EPIDEMIC INTELLIGENCE PROGRAM

Dr. ANDREWS. We do not use any insecticides which do more harm to man than the insect would, of course. Very careful determinations are made, as far as we are able to, to determine the toxicity of the insecticide to man. That is what you mean, if I understand you correctly.

Senator ECTON. Yes.

Dr. ANDREWS. There has been much criticism, for example, of DDT, and yet the tremendous application of DDT throughout the world, and the dramatic results which have attended its use in preventing and virtually exterminating malaria in many countries of the world, I think, lead almost everyone to believe that there has been much more good done by DDT than any conceivable harm. I know I must have swallowed 2 or 3 pounds of DDT myself during my career with the Army because we made the initial use of DDT on a very large scale in North Africa, Italy, and southern Europe, and I have no doubt but that somebody could isolate DDT from the fat in my body now, but I cannot say that it has ever done me any harm.

Senator ECTON. You do not look as though it has harmed you.

Dr. ANDREWS. We established last year a mobile corps of research medical officers, competent in the investigation and the management of epidemic diseases, and we call this our epidemic intelligence program. By the end of this year 25 or more of these individuals will have had intensive training in these subjects, and will be acquiring practical experience from research problems which they are undertaking in the field and in the investigation of natural epidemics.

We believe that the association of these young men with the older epidemiologists in the States who are observers of the mass phenomenon of disease will extend and improve the epidemiological services of the Nation for peacetime. Even if these officers leave the Public Health Service after a minimum tour of duty, they will remain available for assistance to State and local health authorities in distinguishing between natural and enemy-induced outbreaks of disease. We have participated in the planned program of the Public Health Service, together with the National Institutes of Health and the Environmental Health Center, concerning airborne disease studies. These have great peacetime significance. The theory of contact infection has very largely supplanted that of airborne infection until recently, but the observations concerning accidental laboratory infections, pulmonary TB, and certain other lung infections, and "Q" fever, gives us some reason to challenge the belief that most of these contagious diseases are spread entirely by contact. We feel it is necessary to determine the relative importance of these two methods of agent transmission in order to formulate more intelligent ways and means for preventing the diseases that they cause.

These studies also provide the basis for defense against biological warfare, or part of the defense against it, first of all, by developing a mechanism for continuous or intermittent air sampling so we can early detect the presence of unusual disease-producing agents in the air; and by devising more rapid methods of identifying these agents or determining just what their particular susceptibilities to antibiotics may be. Our approach to the subject, predominantly, is a biological

one and uses the time-honored methods of air sampling, of determinative microbiology and virology, and of safe handling practices in the laboratory. This involves conventional and improved methods of serology, cultivation, animal inoculation, sensitization, enzymology and antibiotic susceptibility, hoping to expedite these procedures so that information concerning the identification of these organisms can be cut down in time to minimize the effects of biological attacks.

Senator CHAVEZ. What do you do with international transportation. What method of inspection do you have, Doctor?

Dr. ANDREWS. That is within the province of the Division of Foreign Quarantine. We have nothing whatever to do with that.

Senator CHAVEZ. As far as your particular agency is concerned?

Dr. ANDREWS. That is right.

Senator CHAVEZ. But you do have an agency that looks after that?

Dr. ANDREWS. Yes, sir, Foreign Quarantine takes care of that.

RAT CONTROL

Rats, of course, spread a good many diseases, other than typhus, which I have mentioned. Such things as the plague, certain types of food poisoning, rat bite fever, and we have assisted the States in investigating rat prevalence and promoting and demonstrating rat control in communities to prevent these diseases. By way of example, from July 1, 1950, to November 30, 1951, we made 675 surveys and demonstrations in 647 cities in 28 different States and the District of Columbia. Similar activities are now under way in 22 other cities.

DIARRHEA RESEARCH

Fly-borne diarrhea, which is of great importance in several of the States, particularly in the Southwest, is a great cause of physical ineffectiveness. The number of deaths from the disease seems to be going up, at least temporarily—about 8,000 to 10,000 persons per year, mostly children, of course, under 2 years of age. There is good reason to believe that there are probably 100 times as many cases as there are deaths, and if you will reckon the duration of 5 days, you will see that it has made quite a substantial inroad on the physical productiveness of the persons that have them.

We started out demonstrating community fly control in 10 localities of 4 different States, and this has led to 26 locally financed antifly pojects in five other States thus far. Our laboratory continues to supply refresher training for technicians. This last year we had 156 trainees from State and local health departments, and 294 from other sources. The laboratory also performs reference diagnostic services for the States. That is in handling specimens which the State laboratories themselves do not have the facilities to diagnose.

In each of the last 3 years they have handled over 100,000 specimens and the greatest increase in the types of specimens has been in the most expensive type that it takes to diagnose, namely, the virus disease specimens. There were 1,000 in 1949, 2,000 in 1950, and 10,000 in 1951, so that the number goes up and costs accordingly.

TRAINING FILMS

During the last 5 years we have made annually an average of 16 motion pictures designed for the training of professional people in the field of public health, 16 new motion pictures, and 24 film strips. In 1951 that number was up to 21. The use of these training materials, about two-thirds of the total use, is by State, local, and Federal health agencies. The other third is mainly by universities, colleges, medical schools, nursing, engineering schools, hospitals, et cetera.

EPIDEMIC AND DISASTER AID

Our epidemic and disaster aid continues at the same level as last year. Actually we investigate more outbreaks of disease than we charge against this particular allocation. Last year 14 such emergencies were met, and this year, 1952, we have already had 10, including the Kansas City flood.

I will be glad to answer any other questions that you have.

Senator CHAVEZ. Senator Ecton.

Senator ECTON. In respect to this control program, which causes the greatest disease and causes the most epidemics, these insects or water supply, or is it a combination of the two?

Dr. ANDREWS. I suppose the greatest number of epidemics are caused by personal-contact diseases. Water used to supply a tremendous number of epidemics, and so did insects, but it has been impossible to reduce, by sanitary methods, the incidence of water-borne and insect-borne diseases. The principal area of insect-borne disease now is in the Western States with reference to encephalitis, the form of sleeping sickness that I mentioned earlier. The development of these large water resources—river basin development—can mean nothing less than the production and maintenance of increased areas of water for long periods during the year, and that means an increase in the number of mosquitoes that can be produced. So that we are studying and working with the other Federal agencies that are constructing and maintaining these irrigation systems, and working with the State health departments, in order to minimize, if we cannot prevent, the spread of disease from these developments.

Senator ECTON. It has always seemed to me miraculous that we do not have more epidemics in this country than we do, when we take drinking water from a river above the city and dump all the sewage below, and that is done simultaneously and continuously with all the cities and the populations who live downstream. It seems to me that we are putting a tremendous dependence on the good working conditions of our water supply systems. If the thing would get out of commission for as much as 15 minutes in any one year, there is a possibility, it seems to me, to spread disease all over the whole country.

Dr. ANDREWS. It certainly is a very vulnerable area.

Senator ECTON. It just seems like we in America should do a little differently and should not put such dependence on our purification systems, and so forth. Intelligent people should not do that, it seems to me.

Senator CHAVEZ. Last week, Senator Ecton—I do not know whether you were here or not when we discussed the water-polution program of the Public Health Service—there were interesting questions on that.

EMORY UNIVERSITY HOSPITAL PROPOSAL

Dr. Andrews, for the past 10 years, Senator George and Senator Russell have been interested in building on the campus of Emory University a hospital on land to be donated. I believe you commented on that last year. Would you comment on that now?

Dr. ANDREWS. Yes, sir. The situation is more pressing now than it was last year, of course. We have our laboratories and our audio-visual production branch located on the site of a general army hospital, Lawson General Hospital, which is now a Veterans' Administration hospital. The present plans are for the Veterans' Administration to move from that area to Augusta, Ga. It will become even more expensive and difficult to maintain these impermanent frame buildings. They are already spending large sums of money for their maintenance. We will have to rearrange the heating system entirely at a cost of something in excess of $40,000. If we can utilize only, say, a third of the hospital area, it will not be economical to operate the total heating system which takes care of the entire hospital.

The Emory University site was purchased and donated to the Government unconditionally several years ago. It is still available.

Senator CHAVEZ. Where is that with reference to Atlanta?

Dr. ANDREWS. It is right outside of Atlanta. It is within the suburban area of Atlanta and is right adjacent to the Emory campus. It would put us in close working relationship with the Emory Medical School and Hospital, which would be of mutual benefit to the Communicable Disease Center and Emory University.

Senator CHAVEZ. If that program would prevail, you would move from your present location to Emory University?

Dr. ANDREWS. Yes, sir. We would bring in the elements which are now located in Montgomery, Ala., the elements which are downtown in Atlanta in two different places, and this would permit us to consolidate many of the activities which have had to be carried on under a variety of conditions with a lot of unnecessary cost.

Senator CHAVEZ. What is needed for Federal participation in that program?

Dr. ANDREWS. As I understand, it would be the appropriation funds for the construction of such a building.

Senator CHAVEZ. For the Bureau of Public Health?

Dr. ANDREWS. That is right.

Senator CHAVEZ. But you would get the space there if the building were to be constructed free gratis?

Dr. ANDREWS. I beg your pardon, sir?

Senator CHAVEZ. The Government would not have to pay for the land on which the building is to be built?

Dr. ANDREWS. That is right, and plans and specifications will be complete the 1st of April. So we are all ready to go.

Senator CHAVEZ. Have you made an estimate of the cost?

Dr. ANDREWS. Yes, sir. That was $12,125,000.

Senator CHAVEZ. Thank you, Doctor.

Do you care to ask any questions, Senator Knowland?

Seantor KNOWLAND. No, sir.

Senator CHAVEZ. If not, thank you.

Dr. ANDREWS. Thank you, sir.

Hospitals and Medical Care

STATEMENT OF DR. G. HALSEY HUNT, CHIEF, DIVISION OF HOSPITALS; DR. LEONARD A. SCHEELE, SURGEON GENERAL; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$28,974,000	$30,200,000	$32,930,000
Proposed supplemental due to pay increases		1,417,000	
Reimbursements from non-Federal sources	520,551	657,774	711,703
Reimbursements from other accounts	6,446,985	7,059,948	5,181,528
Total available for obligation	35,941,536	39,334,722	38,823,231
Unobligated balance, estimated savings	−44,105		
Obligations incurred	35,897,431	39,334,722	38,823,231
Comparative transfer from "Employee health service programs, Public Health Service"	308,672		
Comparative transfer to "Salaries and expenses, Public Health Service"	−19,250	−21,550	
Total obligations	36,186,853	39,313,172	38,823,231

Note.—Reimbursements from non-Federal sources above are for medical services provided to foreign seamen, voluntary addicts, and for dependant care and out-patient visits in accordance with 42 U. S. C. 221.

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
Direct Obligations			
Appropriated funds:			
1. Operation of hospitals	$24,364,336	$26,634,831	$27,921,835
2. Operation of out-patient clinics and offices	3,117,273	3,449,564	3,468,080
3. Operation of health units	7,925	9,329	9,580
4. Coast Guard, medical services	805,785	853,519	857,156
6. Administration	665,169	648,207	673,349
Total appropriated funds	28,960,488	31,595,450	32,930,000
Reimbursements from non-Federal sources:			
1. Operation of hospitals	520,551	657,774	711,703
Total direct obligations	29,481,039	32,253,224	33,641,703
Obligations Payable Out of Reimbursements from Other Accounts			
1. Operation of hospitals	6,215,085	6,148,158	4,263,458
3. Operation of health units	258,829	331,590	335,570
5. Personnel detailed to other agencies	231,900	580,200	582,500
Total obligations payable out of reimbursements from other accounts	6,705,814	7,059,948	5,181,528
Total obligations	36,186,853	39,313,172	38,823,231

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Summary of Personal Services			
Total number of permanent positions	7,962	7,712	7,729
Full-time equivalent of all other positions	147	147	147
Average number of all employees	7,622	7,418	7,344
Average salaries and grades:			
General schedule grades:			
Average salary	$3,282	$3,691	$3,701
Average grade	GS-4.3	GS-4.3	GS-4.3
Crafts, protective, and custodial grades:			
Average salary	$2,667	$3,031	$3,015
Average grade	CPC-3.3	CPC-3.5	CPC-3.5
Personal service obligations:			
Permanent positions	$26,408,906	$28,803,713	$28,597,135
Part-time and temporary positions	1,002,953	1,050,516	945,506
Regular pay in excess of 52-week base	51,556	138,455	83,889
Payment above basic rates	870,171	946,288	932,370
Total personal service obligations	28,333,676	30,938,972	30,558,900
Direct Obligations			
Appropriated funds:			
Personal services	22,532,128	24,603,580	25,706,067
Travel	233,473	227,100	206,575
Transportation of things	187,579	193,580	172,425
Communication services	97,080	99,800	94,570
Rents and utility services	473,311	444,330	454,440
Printing and reproduction	63,842	64,880	60,030
Other contractual services	895,034	965,970	939,120
Services performed by other agencies	304,150	363,200	436,100
Supplies and materials	4,476,378	4,718,380	5,021,509
Equipment	396,886	584,290	562,670
Grants, subsidies, and contributions	17,411	19,000	21,300
Refunds, awards, and indemnities	2,568	800	800
Taxes and assessments	11,266	34,940	36,930
Subtotal	29,691,106	32,319,850	33,712,536
Deduct charges for quarters and subsistence	730,618	724,400	782,536
Total appropriated funds	28,960,488	31,595,450	32,930,000
Reimbursements from non-Federal sources:			
Personal services	412,206	525,741	565,190
Travel	3,631	4,069	3,866
Transportation of things	3,264	3,848	3,773
Communication services	1,716	2,030	2,036
Rents and utility services	9,956	10,619	11,453
Printing and reproduction	1,013	1,171	1,283
Other contractual services	7,097	8,624	9,510
Supplies and materials	89,089	105,695	120,262
Equipment	7,959	12,700	13,394
Taxes and assessments	218	789	882
Subtotal	536,149	675,286	731,649
Deduct charges for quarters and subsistence	15,598	17,512	19,946
Total obligation payable out of reimbursements from non-Federal sources	520,551	657,774	711,703
Total direct obligations	29,481,039	32,253,224	33,641,703
Obligations Payable Out of Reimbursements From Other Accounts			
Personal services	5,389,342	5,809,651	4,287,643
Travel	45,027	38,831	23,959
Transportation of things	42,051	36,272	22,902
Communication services	21,027	19,570	12,794
Rents and utility services	118,863	99,251	68,607
Printing and reproduction	12,718	11,849	8,587
Other contractual services	85,734	82,606	58,970
Supplies and materials	1,069,327	996,125	728,629
Equipment	105,303	122,010	83,536
Taxes and assessments	2,648	7,471	5,388
Subtotal	6,892,040	7,223,636	5,301,015
Deduct charges for quarters and subsistence	186,226	163,688	119,487
Total obligations payable out of reimbursements from other accounts	6,705,814	7,059,948	5,181,528
Total obligations	36,186,853	39,313,172	38,823,231

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$3,390,755	$3,840,266	$3,056,812
Obligations incurred during the year	35,897,431	39,334,722	38,823,231
	39,288,186	43,174,988	41,880,043
Deduct:			
Reimbursable obligations	6,967,536	7,717,722	5,893,231
Unliquidated obligations, end of year	3,840,266	3,056,812	1,511,792
Obligated balance carried to certified claims account	26,660		
Total expenditures	28,453,724	32,400,454	34,475,020
Expenditures are distributed as follows:			
Out of current authorizations	26,403,842	27,488,474	31,680,000
Out of prior authorizations	2,049,882	3,580,000	2,710,000
Out of anticipated 1952 supplemental for pay increases		1,331,980	85,020

PROGRAM AND PERFORMANCE

1. *Operation of hospitals.*—For various groups of patients including American seamen, coast guardsmen and their dependents, Bureau of Employees' Compensation cases, persons afflicted with Hansen's disease and narcotic addicts, there are operated 18 general hospitals; 2 tuberculosis hospitals; the National Leprosarium at Carville, La.; and 2 neuropsychiatric hospitals.

Average daily patient load and annual total out-patient visits

	1951 actual	1952 estimate	1953 estimate
Hospital patients:			
General hospitals	4,137	4,334	4,070
Tuberculosis hospitals	477	490	475
Leprosarium	391	410	420
Neuropsychiatric hospitals	2,326	2,210	2,210
Total	7,331	7,444	7,175
Hospital out-patient visits	576,262	590,000	622,300

The types of patient beneficiaries are:

Nonreimbursable: American seamen, Coast Guard personnel, Bureau of Employees' Compensation cases, patients at the National Leprosarium, narcotic addicts, and other beneficiaries authorized by law.

Reimbursable: Veterans, foreign seamen, Army, Navy, and Marine Corps personnel, immigrants, Coast Guard and Public Health Service dependents, and other reimbursable patients.

2. *Operation of out-patient clinics and offices.*—There are 18 clinics with full-time staff plus 107 out-patient offices operated by part-time physicians.

3. *Operation of health units.*—In addition to an employees' health program for the Federal Security Agency, programs are conducted on a reimbursable basis for other Federal agencies.

4. *Coast Guard, medical services.*—Medical services are provided for Coast Guard personnel at shore stations and on vessels.

5 *Personnel detailed to other agencies.*—Medical personnel are furnished on a reimbursable basis.

6. *Administration.*

Hospitals and medical care, Public Health Service—New positions requested, 1953

Title	Grade	Positions	Net amount
2. Operation of out-patient clinics and offices:			
Medical officer	GS-11	2	$10,098
Staff nurse	GS-5	2	5,797
Medical stenographer	GS-4	1	2,699
Laboratory technician	GS-3	4	10,030
Dental hygienist	GS-3	2	5,015
Housekeeping aid	CPC-2	1	2,057
Total		12	35,696
4. Coast Guard, medical services:			
Commissioned officers: Full grade		5	30,324
Total		5	30,324

HOSPITALS AND FACILITIES

Senator CHAVEZ. Dr. Hunt, are you ready to proceed?

Dr. HUNT. Yes, sir. Mr. Chairman, if I may make a few observations to begin with. A number of things have happened during the past year since we last appeared before you, and a number of other things are in prospect for the coming year which are important in your consideration of this appropriation.

The appropriation for hospitals and medical care takes care of all of the direct medical-care operations of the Public Health Service. We have 23 hospitals, of which 18 are general hospitals, 2 are tuberculosis hospitals, 2 are neuropsychiatric hospitals, and 1 is the National Leprosarium at Carville, La.

In addition we have 18 out-patient clinics staffed full time by officers of the Public Health Service, and over 100 out-patient offices which are offices of private practitioners whom we have on a part-time basis to take care of our benficiaries. That, of course, is in towns where the volume is so slight that it would not be economical to have a full-time operation of our own.

PATIENT LOAD

During the past year shipping has increased in volume. In the year and a half since Korea, over 800 ships have been recommissioned from the mothball fleet and are in active operation. This, of course, means a considerable increase in the number of American seamen and we are beginning to feel the effects in that the number of hospital admissions of American seamen is rising.

During the past few months, in the first session of the present Congress, an increase of about 45 percent in the strength of the Coast Guard was authorized. Since we act as the medical arm of the Coast Guard, this has already begun to have an impact upon us, and we have or will have in the future a considerably greater workload laid upon us for this reason.

One of our other activities of importance is taking care of Federal employees who are hurt at work. The stepping up of the defense effort has greatly increased the number of workers in Federal shipyards and in arsenals, so that we can expect——

Senator CHAVEZ. And the Pentagon.

Dr. HUNT. We might get some impact from the Pentagon, Senator. We take care only of those who are actually hurt at work and there would be a few from the civilian employees in office buildings. The larger impact is going to come from the more dangerous occupations in shipyards and arsenals and installations of that sort.

There is one other factor which has not yet begun to operate but which will begin to operate and affect us next year. We take care of a certain number of patients for the Veterans' Administration in areas where their own facilities are insufficient. During the fiscal year 1953 there is estimated to be a drop in the number of patients for whom we will give service on behalf of the Veterans' Administration.

Those relationships can be demonstrated graphically by this chart, of which we have some copies. This first chart represents the average daily patient load in our hospitals for each of 4 years, 1950, 1951, 1952, and 1953. You will note that the total number of patients dropped slightly between 1950 and 1951; has gone up slightly between 1951 and 1952; and will again drop slightly in 1953. The solid bars representing direct beneficiaries show, however, a trend upward each year from about 5,500 in 1951 to over 6,000 estimated in 1953. That is the group for which we are asking direct appropriations. The Veterans' Administration, of course, reimburses us for the patients they send to us.

Senator CHAVEZ. Is that included in No. 1 on page 90, "Appropriations for hospitals"? Is that the direct appropriation you are speaking of now?

Dr. HUNT. That includes both direct and reimbursable beneficiaries.

1953 BUDGET ESTIMATE

Senator CHAVEZ. You want an appropriation of $32,930,000. That is the estimate for 1953?

Dr. HUNT. Yes, sir.

REIMBURSEMENTS

Senator CHAVEZ. And you are reimbursed $5,893,231?

Dr. HUNT. That is right.

Senator CHAVEZ. From the total of $32,930,000 you are reimbursed that amount?

Dr. HUNT. In addition to the $32,930,000, for which we are asking a direct appropriation, we would add the proposed reimbursement of $5,893,231, which would come to the total obligation of $38,823,231. This is almost half a million dollars less than the corresponding figure for the current fiscal year shown in the first column. That figure is $39,313,172.

Senator CHAVEZ. I am not quite clear. You get $32,930,000.

Dr. HUNT. That is right.

Senator CHAVEZ. In order to be reimbursed you have to spend that amount of money in services?

Dr. HUNT. Under the terms, I believe, of the Economy Act of 1932, we are reimbursed by the Veterans' Administration or any other Government agency if we take care of one of their patients.

Senator CHAVEZ. But you take care of one of their patients with your funds; is not that correct?

Dr. HUNT. We have to have a going plant to start with. We therefore estimate each year what the reimbursement will be from the Veterans' Administration and from other sources. That is shown on page 89 in the first line, called "Reimbursements."

Senator CHAVEZ. Yes; I see that.

Dr. HUNT. When we come to the actual operation, we do get an advance from the Veterans' Administration of cash which permits us to operate during the first part of the year.

Senator CHAVEZ. Without using your own funds?

Dr. HUNT. That is right.

Senator CHAVEZ. That is what I wanted to get clear.

Dr. HUNT. But it is adjusted at the end of the year so that if our reimbursements fall below what was estimated, as they did last year, we have to cut corners and take account of it. In other words, we have to plan on what amounts to a potentially fluctuating income, because we have what the Congress appropriates to us directly to take care of our own beneficiaries, and then the additional amount, which can vary, depending on how many patients VA and other groups send to us.

OUT-PATIENT VISITS

One other factor in the workload which is of very great importance is shown on the right-hand side of the chart. That is a tabulation of the number of out-patient visits to our hospitals during the same 4-year period. There again you will notice that the number goes up consistently from about 550,000 in 1950 to well over 600,000 in 1953. This is the result of a number of factors, one of which is the trend in modern medical practice to keep people out of the hospitals just as much as possible. We are fully in accord with that trend and are going along with it. I should point out, however, that in doing that, we have to have out-patient facilities which do a better job than they used to do in the past. The day has gone when you can go to an out-patient clinic or go to a doctor's office, for that matter, if you have more than a very trivial illness, and have him look at you for 3 minutes or 5 minutes or even 20 minutes, and make a diagnosis and start treatment. Laboratory work is essential. X-ray equipment and facilities are essential. And this increase in out-patient activity can be built up and supported properly only by establishing better out-patient clinics than we have ever had in the past. That is not just a phenomenon in the Public Health Service. It is true in all kinds of medical practice.

Senator CHAVEZ. What about the item for operation of out-patient clinics? You have a little addition there.

Dr. HUNT. That goes up slightly. It does not go up as much as we possibly would like to see it, but it was as much as we could afford in this fiscal year. The operation of hospitals, as you see, has already been depressed between 1952 and 1953 by over $500,000. We were not able to depress that any further.

Senator CHAVEZ. You were not able to convince the Budget Bureau?

Dr. HUNT. If you wish to put it that way, yes, sir.

ORIGINAL BUDGET REQUEST

Senator CHAVEZ. What did you ask for for the hospital operation?

Dr. HUNT. The total request from the Bureau of the Budget for hospital operations was $37,288,893. That was only for the project operation of hospitals.

GOVERNMENT HEALTH UNITS

Senator CHAVEZ. What do you mean by operation of health units? Is that the out-patient clincs?

Dr. HUNT. No, sir; those are the health units established in Government buildings where there are more than 300 employees, to take care of first aid, on-the-job illnesses, and that sort of thing.

Senator CHAVEZ. You handle medical services for the Coast Guard also?

Dr. HUNT. Yes, sir.

Senator CHAVEZ. Can you tell us briefly about that activity? Are there any problems connected with that?

Dr. HUNT. There are always problems when you have such a widespread operation, Mr. Chairman. We take care of a good many of the Coast Guard men who are ill in our own hospitals and clinics, and that is shown as part of the hospital or clinics projects.

PERSONNEL INCREASE

Senator CHAVEZ. You are asking for five new positions.

Dr. HUNT. That is right. Those are for assignments on Coast Guard vessels or in Coast Guard installations, where our present number of officers is 85. We are asking for an increase to 90.

Senator CHAVEZ. You are not asking for an increase in personnel in administration, but I know the item has increased $25,142.

Dr. HUNT. That is primarily on an increase in the average employment. We have had this year to leave positions vacant for a time before refilling them, and we are asking next year for a greater utilization of existing positions.

ASSIGNED PERSONNEL

Senator CHAVEZ. Now, personnel detailed to other agencies. That is when you send personnel from the Public Health Service over to the Department of Agriculture?

Dr. HUNT. That is correct.

Senator CHAVEZ. That is to take care of that authorization of the appropriation where you have to give service where there are more than 300 employees in a building?

Dr. HUNT. For the most part, this item reflects the assignment of Public Health Service officers to other agencies of government to do work for that agency.

Senator CHAVEZ. First aid?

Dr. HUNT. No; this is actual medical care, sir. We have 65 proposed for next year; 65 assigned to the Bureau of Indian Affairs to help Dr. Foard run their medical program.

Senator CHAVEZ. They get an appropriation; do they not?

Dr. HUNT. That is right, and they reimburse us for those officers. This is a reimbursable item, and it is in here because it has to show in a Public Health Service budget. But actually the cash comes from the other agencies, and those assignments are fully reimbursable.

Senator CHAVEZ. I am just wondering about duplication. I do not know how you are going to do it, because, once you start an agency in some department, it is hard to get rid of it. But it appears that medical service should be under one administration, especially for Government employees. That is my view.

GOVERNMENT HEALTH UNITS

Dr. HUNT. The service for Government employees is another similar problem. We have in the project for operation of health units an item next year of $345,000. All but about $50,000 of that is reimbursed to the Public Health Service from the other agencies for whom we operate the health units.

Senator CHAVEZ. So you will understand my question, so you will know what I have in mind——

ASSIGNMENTS TO INDIAN BUREAU

Senator THYE. Mr. Chairman, if I might interpose there this one question: What types of service do you render to the Indian Bureau or the Indian Division that they make use of these 88 positions of personnel that you have listed on page 107? I note there are 88, and you are reimbursed by $582,500. What kind of service do you render? Is that full-time or is it part-time service? The Indian Bureau has their medical personnel, both stationed in hospitals available otherwise to render service. It is hard for me to understand why your agency is called upon to render a service, and they reimburse you, because they do have their medical staff.

Dr. HUNT. This is to supplement their medical staff, sir. The officers detailed to them come under the administrative direction of the Bureau of Indian Affairs as long as they are on detail. This is a way of helping them give service which they have not in the past been able to give.

Senator THYE. What type of service do you render? Do you render just straight medical service, or is it a specialized type of service that you render where they find it necessary to call on you?

Dr. HUNT. We as a division render no service to them at all. We simply make officers available to them on assignment.

Senator THYE. Do you assign an officer, for instance, for an entire year to them?

Dr. HUNT. That is right; usually a little longer.

Senator THYE. Why does not the Indian Bureau draw upon its own personnel, not that I am questioning it. I am just trying to get some information.

Mr. HARLOW. They work in their facilities and they are just the same as their own employees. It is part of their staff.

Senator THYE. If we go over here on page 107–J, and take a look at that, and you see personnel detailed to other agencies, medical officers, nurses, clerical, grade established by the act of July 1, 1944, and then you go on further down and find directors, senior, full,

senior assistant, assistant, and that raises the question, why do you have to furnish that, when the Indian Bureau has their own personnel. This is administrative, clerical and nurses, and so forth. It is not just doctors that might be assigned by your division.

Dr. HUNT. On that page, there are included not only those detailed to the Indian Service, but also those detailed to other agencies, I think, which takes account of the administrative and clerical people.

Senator THYE. But I believe your earlier statement said there were 65 assigned to the Indian Bureau.

Dr. HUNT. That is right.

REIMBURSED AMOUNT

Senator THYE. And then you have a total of 88 that come under this reimbursible sum of $582,500.

Dr. HUNT. Those include 65 to the Bureau of Indian Affairs, 6 to the Bureau of Employees Compensation, 4 to the Coast and Geodetic Survey, 4 to the Office of Vocational Rehabilitation, 2 to the Fish and Wildlife Service, 1 to the Bureau of Animal Industry, 5 to Immigration and Naturalization, and 1 to the Department of State.

Senator THYE. What would you assign to the Bureau of Animal Industry?

Dr. HUNT. That is a medical officer who is assigned in Mexico City on the hoof-and-mouth disease prevention program.

Senator THYE. That is the only way that could be handled, that is, your department furnishing a medical officer to look after the health of the Americans down there?

Dr. HUNT. The other agencies have had a long history of calling upon the Public Health Service for medical officers in small numbers, such as those I have just read.

Senator THYE. I can understand that that is a new activity which has just been on since 1947, since the outbreak of hoof-and-mouth disease down there. But what about Fish and Wildlife? That is an established agency that has been functioning for a long, long time.

Dr. HUNT. That is correct, but they do not have a medical department of their own. They would have great difficulty in recruiting and supervising one or two medical officers. These two medical officers assigned to the Fish and Wildlife Service are on the Pribilof Islands, off the coast of Alaska, that is, the seal islands. There again it seemed much more efficient to have the Public Health Service furnish them with two officers on a reimbursement basis—they pay us for them—than to suggest to the Fish and Wildlife Service that they go out and hire a couple of doctors on their own. They do not have the mechanism to do that either. This seems to be a workable mechanism that has been going on for a long time, and I think quite effectively.

In the case of the Bureau of Indian Affairs, the large jump in the numbers of officers assigned to that Bureau results from the fact that about 2 years ago the Congress gave a considerably increased amount of money to the Bureau of Indian Affairs to take more complete care of the Indians than they have been able to do in the past. They do have a medical service of their own, and provision for employing civil-service physicians. The market is such, however, that they were not able to get civil-service physicians in sufficient numbers and

of sufficient quality. They, therefore, called upon the Public Health Service to supply a large number of medical officers on a reimbursable basis. We were glad to comply with that request. As a matter of fact, we are told that the medical service furnished to the Indians has improved very materially in the last year.

CLERICAL AND ADMINISTRATIVE ASSIGNMENTS

Senator THYE. I do not question the medical there, but the other personnel, the clerical and administrative, that is found on page 107–J.

Dr. HUNT. Those include four people assigned to the Bureau of Immigration and Naturalization, Senator, on Ellis Island. We take care of patients whom they send to us at our hospitals, but the administrative work is carried out to some degree at the Ellis Island receiving station, so that these people show on our payroll, but then we are reimbursed for the services by the Bureau of Immigration and Naturalization.

Senator THYE. The only question that occurred to me is that the Director, both senior and full time, and assistant—I could understand if you were assigning a doctor or if you were receiving patients, and it came under your division, but when it gets to this personel, it is a little hard for me to understand.

Dr. HUNT. Those are simply the grades of the Public Health Service commissioned corps. If for director, you read colonel, and for senior you read lieutenant colonel, full is equivalent to major, senior assistant is equivalent to captain, and assistant is equivalent is first lieutenant, then I think it may not be quite so confusing. We are using these grades and are used to them, but a lot of other people are not. They are the official grade titles of the commissioned corps of the Public Health Service, modeled after the grade titles of the Medical Corps of the Navy.

Senator CHAVEZ. Gentlemen, I call your attention to Public Law 874 of the Eighty-first Congress. That was the act to provide financial assistance to areas affected by Federal activities, and for other purposes. It used to be that the Army had money for schools and the Indian Bureau had money for schools and the Atomic Energy Commission. Subsection (d) of section 8 reads as follows:

> No appropriation to any department or agency of the United States other than an appropriation to carry out this Act shall be available during the period beginning July 1, 1951, and ending June 30, 1954, for the same purposes as this Act, excepting that nothing in this subsection or subsection (c) of this section shall affect the availability of appropriations for the maintenance and operation of school facilities of Federal property under the control of the Atomic Energy Commission.

And (c):

> No portion of the appropriation of any other department or agency for the fiscal year ending June 1, 1951, as the Director of the Bureau of the Budget determines to be available for the same purpose in this Act, shall, except to the extent necessary to carry out such year's contract made prior to the enactment of this Act, be transferred to the Commissioner for use by him in carrying out such purposes.

ASSIGNMENT OF PERSONNEL TO OTHER AGENCIES

In other words, the interpretation placed upon those sections is that now the Bureau of Education is giving services to the Indian Bureau, but no special money is appropriated to the Indian Bureau. Why could you not carry out this particular work in health without a direct appropriation to the Indian Bureau? In other words, why have two different agencies with high-powered personnel doing the same class of work for two Government agencies?

Dr. HUNT. That could be done. It was one of the recommendations of the Hoover Commission, you will recall. It will be entirely up to the Congress as to whether it wishes the Public Health Service or any other agency to——

Senator CHAVEZ. I know that the services are good, but I do not see any reason for an Indian Bureau medical center and you participating in the medical agency, section, or whatever you want to call it, and at the same time another agency of the Federal Government interested in the same line of endeavor devoting their time to that agency.

Dr. HUNT. Administratively we devote no time to it at all. It is simply a matter of furnishing officers who then become a part of the staff of the Indian Bureau.

Senator CHAVEZ. But they have a medical section, too; have they not?

Dr. HUNT. That is right.

Senator CHAVEZ. Staffed?

Dr. HUNT. And our officers become part of that staff upon detail to the Bureau of Indian Affairs.

Senator ECTON. Are all the physicians and doctors of the Indian Service members of the Public Health Service?

Dr. HUNT. Not all of them. There are a few who are direct employees of the Bureau of Indian Affairs.

Senator ECTON. I see no objection to letting the Federal Health Service supply all the doctors of the Indians. That would unify it. Then they would all be responsible to you.

Mr. HARLOW. I mentioned, Senator, that there are different laws applying to different situations. For example, the Public Health Service gets the appropriations for all the medical care that is rendered to the Coast Guard. With respect to the Bureau of Prisons, there is a law which says that it shall be furnished by the Public Health Service out of funds transferred to it by the Attorney General. With respect to the Indian Service, reliance is placed on one of the old provisions of law, the Economy Act, going back to 1932, which authorizes any Government department to call upon another Government department for service it needs and pay for it.

Senator CHAVEZ. I understand you are acting legally, but it seems to me it is not sound government. I understand you are doing it legally, and with legal authority, but I just do not like to see too much duplication, especially in health.

Mr. HARLOW. There is a great problem for us in these reimbursable items. In this item we have $5,000,000 worth of operations tied up in money we expect to get from some other department. And any falling off in those patients affects us very materially, as far as finances are concerned.

Senator CHAVEZ. Gentlemen, we will recess now until 2:30 p. m.

AFTER RECESS

Foreign Quarantine Service

STATEMENTS OF DR. CALVIN B. SPENCER, CHIEF, DIVISION OF FOREIGN QUARANTINE; DR. LEONARD A. SCHEELE, SURGEON GENERAL; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$3,004,000	$2,900,000	$3,063,000
Proposed supplemental due to pay increases		156,000	
Total available for obligation	3,004,000	3,056,000	3,063,000
Unobligated balance, estimated savings	−21,244		
Obligations incurred	2,982,756	3,056,000	3,063,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Medical examination of aliens and quarantine inspection of persons, vessels, and aircraft entering United States ports	$2,505,532	$2,572,300	$2,579,300
2. Medical examination of visa applicants in foreign countries	319,376	319,700	319,700
3. Administration	157,848	164,000	164,000
Obligations incurred	2,982,756	3,056,000	3,063,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	623	603	603
Full-time equivalent of all other positions	31	32	32
Average number of all employees	619	588	588
Average salaries and grades:			
General schedule grades:			
Average salary	$3,943	$4,411	$4,424
Average grade	GS–6.4	GS–6.4	GS–6.4
Crafts, protective, and custodial grades:			
Average salary	$3,325	$3,581	$3,553
Average grade	CPC–6.9	CPC–6.1	CPC–6.1
Ungraded positions: Average salary	$2,928	$2,855	$2,855
Personal services:			
Permanent positions	$2,390,762	$2,458,874	$2,458,874
Part-time and temporary positions	156,361	170,500	170,500
Regular pay in excess of 52-week base		9,185	9,185
Payment above basic rates	117,227	113,941	120,778
Total personal services	2,664,350	2,752,500	2,759,337
Travel	49,075	52,000	52,000
Transportation of things	22,895	23,000	23,000
Communication services	16,998	17,000	17,000
Rents and utility services	44,418	44,600	44,600
Printing and reproduction	2,833	3,000	3,000
Other contractual services	42,743	40,800	40,800
Supplies and materials	115,677	115,000	115,000
Equipment	65,092	45,000	45,000
Taxes and assessments	835	1,700	1,863
Subtotal	3,024,916	3,094,600	3,101,600
Deduct charges for quarters and subsistence	42,160	38,600	38,600
Obligations incurred	2,982,756	3,056,000	3,063,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$421,553	$404,823	$284,360
Obligations incurred during the year	2,982,756	3,056,000	3,063,000
	3,404,309	3,460,823	3,347,360
Deduct:			
Unliquidated obligations, end of year	401,823	284,360	288,000
Adjustment in obligations of prior years	17,375		
Obligated balance carried to certified claims account	11,626		
Total expenditures	2,967,485	3,176,463	3,059,360
Expenditures are distributed as follows:			
Out of current authorizations	2,702,820	2,625,000	2,775,000
Out of prior authorizations	264,665	404,823	275,000
Out of anticipated 1952 supplemental for pay increases		146,640	9,360

Program and performance

1. *Medical examination of aliens and quarantine inspection.*—Basic workload data are as follows:

	1951 actual	1952 estimate	1953 estimate
Examinations of aliens	1,428,639	1,446,000	1,446,000
Medical certifications	50,662	49,000	49,000
Aircraft and vessels arrivals	68,379	71,250	71,250
Aircraft and vessels treated	9,144	11,100	11,100
Quarantine inspections	31,695,396	31,488,000	31,488,000
Persons treated	315,912	409,000	409,000

2. *Medical examination of visa applicants in foreign countries.*—Basic workload data are as follows:

	1951 actual	1952 estimate	1953 estimate
Total examination	81,206	112,920	112,920
Medical notifications	23,664	33,100	33,100

3. *Administration.*

QUARANTINE INSPECTIONS

Senator CHAVEZ. Dr. Spencer, are you ready to proceed?

Dr. SPENCER. I am, sir. I represent the Foreign Quarantine Division of the Public Health Service, and the appropriation justification which I would like to present will cover the activities of that division for the fiscal year 1953.

In order to properly understand the purpose for which this appropriation is requested, and the operation of the Division, it is well to divide the functions into two parts. First, the purely quarantine part, which has as its primary purpose the prevention of introduction of quarantinable or epidemic disease into this country, particularly with reference to the defined quarantinable disease, smallpox, plague, cholera, typhus, and yellow fever. This function is accomplished by the inspection of vessels, aircraft, other vehicles that are possibly used in international travel, persons carried therein, certain imports, such as lather brushes, birds, dogs, cats, monkeys, cultures or infected materials, laboratory specimens, and the like; also by rodent control pri-

marily carried out on vessels, occasionally carried out on aircraft or other vehicles; by insect-control methods applied primarily to aircraft, and in certain instances applied to ships, as well as port areas.

Senator CHAVEZ. I can see the importance, Doctor, of this particular service, and what it means to the country.

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. Do you have enough personnel to actually attend to the transportation inspections?

Dr. SPENCER. We are doing a rather practical inspection service today. It is not carried to the ideal extent that might be desired, but we feel that the coverage, as we are doing it, is at the moment satisfactory, but could be augmented perhaps to quite considerable betterment.

Senator CHAVEZ. You meet all of the ships that come in, say, New York Harbor?

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. That is, international ships.

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. Whether they are domestic or foreign?

Dr. SPENCER. By domestic, you mean United States-flag lines.

Senator CHAVEZ. Yes, sir.

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. And then such ships as the Queens, or maybe a Panamanian boat, or Greek boat or Italian boat, you meet all of the boats that bring passengers into the country.

Dr. SPENCER. That is correct, sir. It is on the basis of their having engaged in international traffic.

Senator CHAVEZ. How can you cover the inspection of so many on your allotted funds? They must run into thousands that you have to inspect, even the passengers.

Dr. SPENCER. That is true.

Senator CHAVEZ. Without inspecting the ships themselves and the personnel of the ships.

INSPECTION PROCEDURE

Dr. SPENCER. The inspection is carried out in this way. While the passengers are being inspected by one group of personnel, there are usually in the same group that has boarded, sanitary inspectors that go into the holds or the other parts of the vessel, and do the inspection primarily of the vessel.

Senator CHAVEZ. Do you inspect the working personnel of the vessel also?

Dr. SPENCER. Yes, sir. The crew and the passengers are inspected in turn. In some instances, as you mentioned, the *Queens*, there is a larger group of inspectors that goes aboard.

Senator CHAVEZ. They just came to my mind. I do not want to say they are the only ones to be inspected.

Dr. SPENCER. It is a good example because of size. The group of personnel who go aboard will consist upward of 10. A medical officer and six or eight quarantine inspectors is about the average. A sanitary inspector as well. Those are apportioned.

Senator CHAVEZ. Your inspection of personnel runs into millions.

Dr. SPENCER. Yes, sir.

MEXICAN BORDER INSPECTION

Senator CHAVEZ. I notice Mexican-border inspections 32,540,070 estimate for 1953.

Dr. SPENCER. On the Mexican border, sir, many of those are local border crossers.

Senator CHAVEZ. Primarily passengers between Juarez and El Paso?

Dr. SPENCER. Yes, sir. There is not as much notice taken of those. They pass a line, and are observed.

Senator CHAVEZ. But they are counted in tallying your totals?

Dr. SPENCER. Yes, sir. Most of the attention, however, is being paid to the permanent-entry people who come in through there. That is where we put more attention and more examination. So, while the daily crossers are passed through, and we are aware of what the conditions are from the standpoint of disease or other characteristics in that locality, we pay, as I said before, more attention to the permanent-entry people so that, as they are to stay within the country, their qualifications are correct before admission.

AIR-TRANSPORT INSPECTION

Senator CHAVEZ. What about your airplanes. Do you go through the same process?

Dr. SPENCER. Yes, sir. The airports are covered by the same type of personnel as the seaports and vessels.

Senator CHAVEZ. For instance, South America, where do you inspect those?—Miami, San Juan, or New York?

Dr. SPENCER. We are inspecting at San Juan, on certain routes.

Senator CHAVEZ. Where they come in first?

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. In other words, anything that comes from Brazil, Argentina, and Uruguay that hits San Juan, you inspect there?

Dr. SPENCER. That is correct. We get some that hit New York and are inspected there first.

Senator CHAVEZ. And the inspection would be the same way on a sea vessel or airplane?

Dr. SPENCER. It is. I tried to infer that in giving you an outline of how the quarantine inspection was applied, particularly in regard to the controls we establish, rodent control and insect control. We find that, while they may be primarily applicable to one type of commerce, certain conditions will mean that you will have to apply the same thing to the other type of vessel.

MEDICAL EXAMINATION OF ALIENS

The second function of the quartntine is that of the medical examination of aliens. That is carried on through the examination of visa applicants abroad, and on arrival at ports of entry in the United States; in case the examination has not been completed abroad, it is completed here. There is a secondary examination in the one case, even though the examination had been done abroad to check the facts that have been arrived at primarily over there. Then, if the examination has not been done there, a complete examination is done here.

Senator CHAVEZ. Take a given city in Europe, some aliens make application to come over here as visitors or tourists, whatever they are. You put them through an examination at the place where they call for the visa first?

Dr. SPENCER. That would be an examination to a lesser degree on a visitor or somebody who was going to be here for a temporary period.

OVERSEAS ACTIVITIES

Senator CHAVEZ. But you do that at the place where the consul and vice consul are located?

Dr. SPENCER. Yes, sir, where we are covered. We do not cover all consulates. We cover those where there is more traffic and demand.

Senator CHAVEZ. What about the case of those who get in here legally under the quota system; do you examine them?

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. At the origin?

Dr. SPENCER. Yes, sir. In order to determine their eligibility to pass under the regulations.

Senator CHAVEZ. And you do the same thing with those under the Displaced Persons Act?

Dr. SPENCER. Yes, sir. That was carried out in connection with the International Refugee Organization. While they had a preliminary screening and examination abroad, they were examined at the ports of entry.

Senator CHAVEZ. You may proceed.

WORLD-WIDE PREVALENCE OF DISEASE

Dr. SPENCER. From the epidemiological standpoint, the major countries, with the exception of the United States and Canada, are considered to be infected with smallpox. Plague is widespread in Africa, Asia, South America. Cholera is prevalent in southeast Asia. Typhus fever is present in all the major countries except the United States and Canada. And yellow fever is most prevalent in South America; and, of recent historic note, there was an outbreak or extension of epidemic along the Isthmus of Panama, and as far north as Costa Rica. There is some prevalence known to exist in Equatorial Africa. By its freedom from the ravages of pestilential diseases, the United States occupies an enviable position among the countries of the world.

This emphasizes the value and effectiveness of good quarantine control. Repeated outbreaks of epidemics in other countries give warnings of serious consequences which might result if the defense which we have and the control measures which have been so effective were to be abolished or curtailed. While the benefits of the quarantine control are tangible or readily observed, the program of the medical examination of aliens and the exclusion of aliens afflicted by TB or loathsome or dangerous or contagious disease may prevent an immediate impact on the economy of the country, but the exclusion of mentally defective persons is a bit more difficult to evaluate in that this benefits not only the present generation, but also generations to follow. A program of this importance is difficult, then, to properly evaluate.

FIELD STATIONS

The whole program of the Division operating under this appropriation is administered by a limited headquarters staff through 282 field stations and other points of coverage. The stations vary in size from the largest in New York, which is completely equipped and staffed to take care of any quarantine inspection or treatment or the alien medical examinations, on to the small border-crossing points where perhaps a local physician is under contract to perform those services.

Actually, 225 points are manned by part-time or contract physicians, or are covered by personnel from nearby larger stations, having supervision. Obviously, as I said before, the restricted staffing will not permit a further reduction if an effective quarantine control is to be maintained.

The Division has at the present time the lowest personnel complement in many years to cope with this changing and constantly increasing problem. The estimate for 1953 does not contemplate an inclusion of new programs or an increase in program activity. The functions that are supported by this appropriation must be matched against work demands imposed by the amount of air traffic, maritime shipping, the numbers of border crossings or aliens seeking haven in this country. Those factors over which we have no control are continuously increasing in volume. There is no logical way for gearing the service, which we are rendering, for a decrease in workload in the foreseeable future.

1953 BUDGET ESTIMATES

In summary, the Quarantine Division will be obligated to carry on its responsibilities with an appreciable decrease in personnel effected in fiscal '51 and '52 to meet reductions in appropriations as has been experienced in 1952. The funds requested in this estimate will permit the minimum practical operation, while a reduction and resultant curtailment (of quarantine services) will invite introduction of epidemic or quarantinable disease and the effective curtailment of the medical examination of aliens will be either felt as an immediate impact on the country's economy through the admission of aliens affected with TB or other diseases, or as a far-reaching influence on future generations as a result of infiltration of the population by mentally defective aliens.

The amount of the appropriation requested is $3,063,000.

Senator CHAVEZ. That $3,063,000 is $163,000 more than you had last year, but less than you requested of the Budget Bureau?

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. What was the difference?

1952 APPROPRIATION

Dr. SPENCER. The appropriation in 1952 was $3,000,000 of which there was a reserve of $100,000. There is a proposed supplemental to pay the increases of $156,000 in the 1952 appropriation.

Senator CHAVEZ. You are 196,000 less than you requested of the Budget Bureau for this particular agency. You requested $3,259,000, and they granted $3,063,000.

Mr. HARLOW. That is correct.

Senator CHAVEZ. I think those figures should be in the record in view of your explanation of the item.

Dr. SPENCER. Yes, sir.

Senator CHAVEZ. Anything further?

Dr. SPENCER. Nothing further.

Senator CHAVEZ. Senator Thye, do you have any questions?

Senator THYE. I have no questions.

Senator CHAVEZ. Thank you, Doctor.

Dr. SPENCER. Thank you, sir.

Senator CHAVEZ. Without objection, at this point in the record there will be inserted the five year budgeted positions and average employment of the Foreign Quarantine Service.

(The information referred to follows:)

FOREIGN QUARANTINE SERVICE

5-year budgeted positions and average employment

Fiscal year	Total full-time position budget	Full-time average employment budget	Number of contracts	Number of part-time and per diem	Full-time equivalent of contract part-time and per diem	Average number of all employees
1949	652	627	228	34	33	660
1950	650	633	228	34	32	665
1951	623	588	228	34	31	619
1952	603	556	228	33	32	588
1953	603	556	228	33	32	588

5-year work trend of important factors

	1949	1950	1951	1952 estimate[1]	1953 estimate[1]
Vessels inspected	24,209	22,389	25,343	28,756	28,756
Persons on vessels inspected	1,514,179	1,518,345	1,509,045	2,062,986	2,062,986
Airplanes inspected	47,113	39,921	43,036	45,270	45,270
Persons on airplanes inspected	968,895	517,276	616,515	711,464	711,464
Mexican border inspections	23,956,470	28,037,060	29,569,836	32,540,070	32,540,070
Aliens medically inspected	1,410,310	1,330,622	1,428,639	1,632,658	1,632,658
Visa applicants examined (abroad)	79,966	89,229	81,206	109,968	109,968
Vaccinations at ports of entry	117,469	207,419	266,422	230,866	230,866

[1] Based on actual workload for period July 1 through Dec. 31, 1951.

NATIONAL INSTITUTES OF HEALTH

OPERATING EXPENSES

STATEMENTS OF DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH; DR. NORMAN TOPPING, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH; DR. DAVID PRICE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH; DR. VICTOR H. HAAS, DIRECTOR, NATIONAL MICROBIOLOGICAL INSTITUTE; DR. PEARCE BAILEY, DIRECTOR, NATIONAL INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$14,313,900	$15,500,000	$16,876,000
Proposed supplemental due to pay increases		306,000	
Reimbursements from other accounts	1,819,077	2,304,000	3,325,900
Total available for obligation	16,132,977	18,110,000	20,201,900
Unobligated balance, estimated savings	−108,017		
Obligations incurred	16,024,960	18,110,000	20,201,900
Comparative transfer to "Salaries, expenses, and grants, National Heart Institute, Public Health Service"	−200,000		
Total obligations	15,824,960	18,110,000	20,201,900

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
Direct obligations			
1. Grants for research and training:			
(a) Research projects	$7,500,542	$8,615,000	$8,600,000
(b) Research fellowships	531,320	649,000	649,000
(c) Training stipends		86,000	86,000
2. Direct operations:			
(a) Research	5,230,841	5,612,860	6,697,520
(b) Other direct operations:			
(1) Review and approval of research and training grants	515,941	618,480	618,480
(2) Administration	227,239	224,660	225,000
Total direct obligations	14,005,883	15,806,000	16,876,000
Obligations payable out of reimbursements from other accounts			
2. Direct operations:			
(a) Research	1,349,739	1,760,200	2,782,100
(b) Other direct operations:			
(1) Review and approval of research and training grants	6,871		
(2) Administration	462,467	543,800	543,800
Total obligations payable out of reimbursements from other accounts	1,819,077	2,304,000	3,325,900
Total obligations	15,824,960	18,110,000	20,201,900

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
PUBLIC HEALTH SERVICE			
Summary of Personal Services			
Total number of permanent positions	1,536	1,633	2,677
Full-time equivalent of all other positions	11	10	10
Average number of all employees	1,405	1,507	1,884
Average salaries and grades:			
General schedule grades:			
Average salary	$3,880	$4,357	$4,311
Average grade	GS–5.8	GS–5.9	GS–6.0
Crafts, protective, and custodial grades:			
Average salary	$2,704	$3,047	$2,958
Average grade	CPC–4.0	CPC–4.1	CPC–4.3
Ungraded positions: Average salary	$4,305	$6,479	$7,893
Personal service obligations:			
Permanent positions	$5,438,008	$6,550,226	$8,123,905
Part-time and temporary positions	41,584	43,780	47,330
Regular pay in excess of 52-week base		22,889	36,115
Payment above basic rates	105,731	99,585	125,395
Total personal service obligations	5,585,323	6,716,480	8,332,745
Direct Obligations			
Personal services	4,394,606	5,139,020	5,968,960
Travel	107,712	119,500	135,500
Transportation of things	21,052	17,100	21,700
Communication services	41,960	42,950	55,450
Rents and utility services	74,854	74,600	109,200
Printing and reproduction	33,133	38,700	44,300
Other contractual services	79,694	54,650	111,750
Supplies and materials	726,529	709,300	969,900
Equipment	295,476	269,700	245,000
Lands and structures	32,959		
Grants, subsidies, and contributions	8,031,862	9,350,000	9,335,000
Refunds, awards, and indemnities	618		
Taxes and assessments	4,166	6,800	14,120
Subtotal	13,844,621	15,822,320	16,910,880
Deduct charges for quarters and subsistence	12,617	16,320	34,880
Total direct obligations	13,832,004	15,806,000	16,876,000
Obligations Payable Out of Reimbursements From Other Accounts			
Personal services	1,190,717	1,577,460	2,363,785
Travel	8,335	24,750	27,050
Transportation of things	1,381	8,300	10,950
Communication services	17,008	18,900	34,700
Rents and utility services	55,650	58,000	101,400
Printing and reproduction	18,673	21,500	29,100
Other contractual services	49,240	58,800	54,600
Supplies and materials	346,054	394,190	578,235
Equipment	131,269	140,200	115,500
Taxes and assessments	750	1,900	10,580
Total obligations payable out of reimbursements from other accounts	1,819,077	2,304,000	3,325,900
Total obligations	15,651,081	18,110,000	20,201,900
SUMMARY			
Summary of Personal Services			
Total number of permanent positions	1,566	1,633	2,677
Full-time equivalent of all other positions	12	10	10
Average number of all employees	1,423	1,507	1,884
Average salaries and grades:			
General schedule grades:			
Average salary	$3,884	$4,357	$4,311
Average grade	GS–4.6	GS–5.9	GS–6.0
Crafts, protective, and custodial grades:			
Average salary	$2,696	$3,047	$2,958
Average grade	CPC–4.0	CPC–4.1	CPC–4.3
Ungraded positions: Average salary	$4,204	$6,479	$7,893

Obligations by objects—Continued

Object classification	1951 actual	1952 estimate	1953 estimate
SUMMARY—continued			
Summary of Personal Services—Continued			
Personal service obligations:			
Permanent positions	$5,503,217	$6,550,226	$8,123,905
Part-time and temporary positions	44,326	43,780	47,330
Regular pay in excess of 52-week base		22,889	36,115
Payment above basic rates	105,731	99,585	125,395
Total personal service obligations	5,653,274	6,716,480	8,332,745
Direct Obligations			
Personal services	4,462,557	5,139,020	5,968,960
Travel	125,762	119,500	135,500
Transportation of things	26,051	17,100	21,700
Communication services	43,163	42,950	55,450
Rents and utility services	74,854	74,600	109,200
Printing and reproduction	33,140	38,700	44,300
Other contractual services	81,180	54,650	111,750
Services performed by other agencies	1,429		
Supplies and materials	751,082	709,300	869,900
Equipment	349,355	269,700	245,000
Lands and structures	32,959		
Grants, subsidies, and contributions	8,031,862	9,350,000	9,335,000
Refunds, awards, and indemnities	618		
Taxes and assessments	4,488	6,800	14,120
Subtotal	14,018,500	15,822,320	16,910,980
Deduct charges for quarters and subsistence	12,617	16,320	34,880
Total direct obligations	14,005,883	15,806,000	16,876,000
Obligations Payable Out of Reimbursements From Other Accounts			
Personal services	1,190,717	1,577,460	2,363,785
Travel	8,335	24,750	27,050
Transportation of things	1,381	8,300	10,950
Communication services	17,008	18,900	34,700
Rents and utility services	55,650	58,000	101,400
Printing and reproduction	18,673	21,500	29,100
Other contractual services	49,240	58,800	54,000
Supplies and materials	346,054	394,190	578,235
Equipment	131,269	140,200	115,500
Taxes and assessments	750	1,900	10,580
Total obligations payable out of reimbursements from other accounts	1,819,077	2,304,000	3,325,900
Total obligations	15,824,960	18,110,000	20,201,900

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$1,766,069	$2,479,735	$2,504,570
Adjustment in obligations of prior years	36,436		
Obligations incurred during the year	16,024,960	18,110,000	20,201,900
	17,827,465	20,589,735	22,706,470
Deduct:			
Reimbursable obligations	1,819,077	2,304,000	3,325,900
Unliquidated obligations, end of year	2,479,735	2,504,570	2,565,210
Obligated balance carried to certified claims account	35,995		
Total expenditures	13,492,658	15,781,165	16,815,360
Expenditures are distributed as follows:			
Out of current authorizations	12,456,147	13,610,000	14,907,000
Out of prior authorizations	1,036,511	1,883,525	1,890,000
Out of anticipated 1952 supplemental for pay increases		287,640	18,360

New positions requested, 1953

2n. RESEARCH

Title	Grade	Positions	Amount
Positions at rates in excess of $14,000: [1]			
Medical officer		5	$75,000
Scientist		1	15,000
Scientist	GS-16	1	12,000
Administrative officer	GS-15	1	10,800
Medical officer	GS-15	7	75,600
Do	GS-14	8	76,800
Nurse	GS-14	1	9,600
Scientist	GS-14	5	48,000
Dietitian	GS-13	2	16,720
Medical officer	GS-13	5	41,800
Nurse	GS-13	11	91,960
Scientist	GS-13	1	8,360
Administrative officer	GS-12	1	7,040
Chief of section	GS-12	1	7,040
Dietitian	GS-12	4	28,160
Medical staff assistant	GS-12	5	35,200
Medical officer	GS-12	2	14,080
Property management specialist	GS-12	1	7,040
Public health program specialist	GS-12	2	14,080
Scientist	GS-12	6	42,240
Administrative staff assistant	GS-11	1	5,940
Chief of section	GS-11	1	5,940
Dietitian	GS-11	7	41,580
Engineer	GS-11	3	17,820
Financial operations officer	GS-11	3	17,820
Librarian	GS-11	2	$11,880
Medical officer	GS-11	6	35,640
Medical staff assistant	GS-11	4	23,760
Nurse	GS-11	8	47,520
Program publication specialist	GS-11	1	5,940
Property management specialist	GS-11	5	29,700
Scientist	GS-11	2	11,880
Statistician	GS-11	1	5,940
Financial operations officer	GS-10	1	5,500
Administrative staff assistant	GS- 9	2	10,120
Chief of section	GS- 9	1	5,060
Librarian	GS- 9	2	10,120
Medical and scientific illustrator	GS- 9	1	5,060
Medical staff assistant	GS- 9	5	25,300
Nurse	GS- 9	24	121,440
Property management specialist	GS- 9	2	10,120
Research technician	GS- 9	1	5,060
Scientist	GS- 9	3	15,180
Administrative staff assistant	GS- 7	1	4,205
Clerical	GS- 7	3	12,615
Maintenance personnel	GS- 7	2	8,410
Medical and scientific illustrator	GS- 7	1	4,205
Medical staff assistant	GS- 7	3	12,615
Nurse	GS- 7	35	147,175
Scientist	GS- 7	4	16,820
Technician	GS- 7	3	12,615
Medical and scientific illustrator	GS- 6	1	3,795
Medical staff assistant	GS- 6	1	3,795
Technician	GS- 6	3	11,385
Translator	GS- 6	1	3,795
Animal specialist	GS- 5	1	3,410
Clerical	GS- 5	22	75,020
Maintenance personnel	GS- 5	5	17,050
Medical staff assistant	GS- 5	2	6,820
Nurse	GS- 5	56	190,960
Scientist	GS- 5	1	3,410
Technician	GS- 5	19	64,790
Animal specialist	GS- 4	1	3,175
Clerical	GS- 4	58	184,150
Maintenance personnel	GS- 4	1	3,175
Technician	GS- 4	13	41,275
Clerical	GS- 3	66	194,700
Maintenance personnel	GS- 3	5	14,750
Nursing aide	GS- 3	34	100,300
Technician	GS- 3	8	23,600
Clerical	GS- 2	1	2,750
Maintenance personnel	GS- 2	1	2,750
Technician	GS- 2	1	2,750
Clerical	GS- 1	2	5,000
Maintenance personnel	GS- 1	2	5,000
Technician	GS- 1	5	12,500
Ward helper	GS- 1	38	95,000
Maintenance personnel	CPC-10	8	36,520
Dietetic personnel	CPC- 9	1	4,150

New positions requested, 1953—Continued

2a. RESEARCH

Title	Grade	Positions	Amount
Maintenance personnel	CPC- 9	4	16,600
Dietetic personnel	CPC- 8	1	3,740
Laundry personnel	CPC- 8	1	3,740
Maintenance personnel	CPC- 8	33	123,420
Dietetic personnel	CPC- 7	3	10,305
Maintenance personnel	CPC- 7	30	103,050
Dietetic personnel	CPC- 6	2	6,400
Laundry personnel	CPC- 6	4	12,800
Maintenance personnel	CPC- 6	103	329,600
Dietetic personnel	CPC- 5	21	62,454
Laundry personnel	CPC- 5	2	5,948
Maintenance personnel	CPC- 5	9	26,766
Animal caretaker	CPC- 4	3	8,250
Dietetic personnel	CPC- 4	1	2,750
Laundry personnel	CPC- 4	2	5,500
Maintenance personnel	CPC- 4	61	167,750
Ambulance driver	CPC- 3	2	5,104
Animal caretaker	CPC- 3	5	12,760
Clerical	CPC- 3	11	28,072
Dietetic personnel	CPC- 3	16	40,832
Laundry personnel	CPC- 3	9	22,968
Maintenance personnel	CPC- 3	45	114,840
Animal caretaker	CPC- 2	12	29,040
Dietetic personnel	CPC- 2	13	31,460
Laundry personnel	CPC- 2	7	16,940
Maintenance personnel	CPC- 2	103	249,260
Grades established by Act of July 1, 1944 (42 U. S. C. 207):			
Director grade		4	40,620
Senior assistant grade		4	26,523
Ungraded positions at annual rates:			
Rates of $4,600 and above:			
Medical officer		1	14,000
Scientist		11	88,000
Rates less than $4,600: Clerical		2	5,888
Total		1,090	4,060,655
Less lapse			2,529,235
Net increase for new positions			1,531,420
Net increase for personal service costs other than new positions			168,100
Net increase for all personal services costs			1,699,520
Deduct: Increase in reimbursements from N. I. H. accounts			875,520
Net increase for personal services, this activity			824,000

[1] As authorized by sec. 208 (g), Public Health Service Act.

OPERATING EXPENSES, NATIONAL INSTITUTES OF HEALTH, PUBLIC HEALTH SERVICE

Grants for research and training

Research projects:
Grants, subsidies, and contributions:

Estimate, 1952	$8,615,000
Estimate, 1953	8,600,000
Change (+) or (−)	−15,000

During 1952, 1,030 research projects in 270 medical schools, universities, hospitals, and other non-Federal research institutions are being supported under this activity. In this manner, vitally important studies in the special fields of arthritis, metabolic diseases, neurological diseases, blindness, infectious diseases, and in fundamental biological and medical research are made possible. All applications for these grants are thoroughly evaluated by a number of the Nation's outstanding scientists and medical specialists organized in study sections and national advisary councils. The councils also include prominent business executives, educators, editors, and other laymen representing the interests of the general public. No grant is approved without recommendaton by these non-Federal advisory groups. Grant applications for all institutes are handled in this manner.

The primary purpose of this program is to support the search for the new knowledge that is essential if we expect to maintain and improve health and productive power in this country, and to reduce the enormous economic cost of illness. Much of the research supported by the grants program is, however, directly connected to our national needs in the current emergency. A few examples follow: (1) Better methods for physical rehabilitation applicable to the military casualties and to increasing our industrial manpower; (2) research on hemorrhage and shock resulting from trauma, burns, and radiation injuries such as would result if our cities were attacked; (3) more effective methods for treating injuries to the brain and other parts of the nervous system; (4) improved surgical and anesthetic procedures; (5) new antibiotics and better use of existing antibiotics in the treatment of infections; (6) new or better vaccines for the prevention of epidemics. Of particular importance in the event of enemy use of poison gas are the numerous studies dealing with convulsive disorders, analgesia, sedation, and antidotes. Equally important are a number of grants which are intensifying the Nation-wide research effort to improve our defenses against the threat of biological warfare.

The funds requested for 1953 will be required primarily to continue the support of projects currently under way in the following fields of medical research:

	Number of projects	Amount
Arthritis and metabolic diseases	146	$1,345,000
Neurological diseases and blindness	110	1,015,000
Microbiology	212	1,950,000
General medical research	465	4,290,000
Total	933	8,600,000

Research fellowships:
Grants, subsidies, and contributions:

Estimate 1952	$649,000
Estimate 1953	649,000
Change (+) or (−)	0

The fellowships program is one of the major contributions of the Federal Government toward the maintenance of an adequate national supply of scientific manpower. The 1952 program provides for support of 218 fellows. In 1953 operations will be at the same level. These awards will be made to the most highly qualified candidates for training in medical-research techniques in the fields listed below. Experience indicates that 95 percent of the fellows will remain in health and related research after their fellowships are terminated.

	Number of fellowships	Amount
Arthritis and metabolic diseases	26	$76,900
Neurological diseases and blindness	17	51,400
Microbiology	41	120,000
General medical research	134	400,700
Total	218	$649,000

Training stipends:
Grants, subsidies and contributions:

Estimate, 1952	$86,000
Estimate, 1953	86,000
Change (+) or (−)	0

A modest traineeship program inaugurated in 1952 will require support in 1953 at the same level. The objective of this program is to increase the supply of doctors specially trained in diagnosis, prevention, treatment, and rehabilitation of diseases in the general categories given below. Within these categories

are the specialists needed to deal with such conditions as rheumatic diseases, cerebral palsy, multiple sclerosis, endocrine diseases, muscular dystrophy, epilepsy, and blindness.

Arthritis and metabolic diseases	$50,000
Neurological diseases and blindness	36,000
Total	86,000

These funds will continue the support of approximately 25 trainees at an average of $3,440 each.

Direct operations—research

	Estimate 1952		Estimate 1953		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	1,349	$4,425,530	2,394	$5,249,530	+1,045	+$824,000
Travel		66,650		82,650		+16,000
Transportation of things		16,200		20,800		+4,600
Communication services		32,650		45,150		+12,500
Rents and utility services		70,900		105,500		+34,600
Printing and reproduction		28,000		33,600		+5,600
Other contractual services		43,600		100,700		+57,100
Supplies and materials		679,200		839,800		+160,600
Equipment		257,000		238,100		−18,900
Taxes and assessments		5,850		12,970		+7,120
Deduct quarters and subsistence		−12,720		−31,280		−18,560
Total		5,612,860		6,697,520		+1,084,660

GENERAL STATEMENT

This project provides funds for the medical and related research of three institutes: the National Microbiological Institute, the National Institute of Arthritis and Metabolic Diseases, and the National Institute of Neurological Diseases and Blindness. These funds also provide for central technical, laboratory, and patient-care services supporting the research programs of these institutes.

The increase in funds in 1953 is related to clinical-center activities. The new positions are for staffing the central laboratory and patient-care services which support all institute programs to be conducted in the clinical center. The number of positions indicated includes both those financed directly from the NIH appropriation and those financed through reimbursement from the categorical appropriations.

The new clinical center will open in the latter part of fiscal 1953. Its primary objective, a common, integrated facility for use of all research institutes, is to reduce the long delay frequently experienced in obtaining clinical evaluation of basic laboratory findings. This evaluation must take place before new drugs and treatments can be made available to the general public. The clinical center should do much to speed up progress in the fight against cancer, cardiovascular, mental, neurological, and metabolic diseases and certain of the yet unconquered infectious diseases that are under intensive study at the National Institutes of Health. The clinical center, probably the most highly specialized research facility of its kind in the world, will provide scientists with a unique opportunity for pooling their skills and resources in a concerted attack on the major disease problems facing our Nation today.

Each Institute will select its own study problems and the patients who will take part in the study, based on the particular research problems and needs of the time. However, the research-team approach to be employed will also foster collaboration between individual scientists and clinicians and between institutes. For example, a study on the relationship of streptococcal diseases to rheumatic fever would involve scientists from both the Microbiological Institute and the National Heart Institute. The nutritional aspects of the same study might also be of interest to scientists of the Arthritis and Metabolic Diseases Institute. In this type of study, many scientific disciplines, laboratories, and clinical specialists may be brought together in close, daily association. This approach should pave the way to quicker solutions to medical research problems and improved public health.

In connection with the new research center, a visiting scientist program is proposed representing a new activity to be carried on by all research institutes. Under this program, it is planned to provide temporary, short-time employment for outstanding scientists permanently affiliated with nongovernmental research organizations. The objectives of this program are twofold: (1) to achieve a closer relationship between NIH scientists and the broad scientific environment of the universities, and (2) to share the unique and specialized clinical center facility with outside researchers whose own institutions cannot provide the environment, instrumentation, collaboration, or clinical research materials essential to various phases of their research. The funds requested for this purpose, in each appropriation, provide for initiating the program during the final quarter of 1953. The annual rate, on a full-year basis, will be proportionately greater. This particular project covers the costs of the visiting-scientist program for the three institutes financed by this appropriation.

The 1953 program for basic research, including its central supporting services, holds substantially to the 1952 level of operations.

1952 funds provide for research on infectious, tropical, and metabolic diseases, on arthritis and rheumatism, and for biologics-control activities. Funds are also provided in 1952 from this activity for employing a small staff to establish the Neurological Diseases and Blindness Institute and the initiation of a few studies on neurological diseases and blindness. 1953, the first full year of operation for this institute, will be at about the same level as in 1952.

Many advances were made in the past year. A few examples are briefly described below:

NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES

Investigations at this institute contributed to an understanding of the complex scientific problems concerning the causes, prevention, and treatment of several major disorders.

One of these achievements was the isolation of a new compound known as the citrovorum factor. It seems to be related chemically to the vitamin folic acid, which is used in treating anemia and malnutrition. The isolated substance, however, is much more active than folic acid under laboratory conditions. The finding may lead to further knowledge about various blood diseases, such as the anemias of infants and pregnant women, pernicious anemia, and the leukemias.

Scientists of this institute made important discoveries relative to the prevention of pain in childbirth. It was found that certain harmful side effects of morphine could be prevented or abolished by administration of N-allylnormorphine, a morphine derivative. A technique may be worked out whereby this substance can be used in obstetrics to prevent respiratory depression in the infant resulting from administration of analgesics to the mother. The drug may also have uses in determining degrees of morphine addiction.

Compound F, an adrenal hormone effective against arthritis, has been synthesized by means of an enzyme system prepared from beef adrenal glands. Scientists also developed methods for assaying small amounts of ACTH and cortisone. These assays will be valuable in experimental and clinical studies of the adrenal cortex, and may help in the difficult problem of determining the optimum dose of ACTH and cortisone in the treatment of rheumatic disease.

Several important findings were made in studies on radiation injury. Rats were shown, for example, to survive lethal doses of X-ray if their blood streams were subsequently joined with those of nonradiated litter mates. The increased survival seems due to accelerated regeneration of damaged blood-forming tissues. An evaluation of possible therapeutic agents against radiation damage revealed that many antibiotics were erratic in action, and some actually increased the mortality in radiated mice. In other studies, methods were devised for obtaining good yields of blood platelets from humans, dogs, and guinea pigs; and platelet transfusion in animals was found to reduce hemorrhage, one of the principal hazards of radiation injury.

NATIONAL MICROBIOLOGICAL INSTITUTE

In spite of the great medical advances of the past half century—advances in which the achievements of laboratories that are today part of the National Microbiological Institute played a leading role—the infectious diseases still are a most serious and widespread problem. For example, many of the so-called dis-

eases of old age—the chronic ailments—frequently owe their origin to some undetected or long forgotten infectious illness of earlier years.

From an economic viewpoint, the continued importance of microbiological research is borne out by the fact that one-half of all absence from productive work results from infectious diseases. This staggering loss is running into millions of dollars each year, is a loss the Nation can ill afford in a period of serious manpower shortages.

The program of the Microbiological Institute is an important national resource in our defense against infectious diseases of every kind and from every source. A brief account of a few of the research activities of this Institute during 1952 follows:

Production of yellow fever vaccine at our Rocky Mountain Laboratory in Montana was increased. This is the only source on the North American Continent of this vaccine, now a critically important item for the protection of military and civilian personnel representing our national interests in areas where yellow fever is endemic. It is our only safeguard for the people in those areas of the continental United States in which yellow fever might be reestablished from other sections of the world.

In cooperation with the armed services and university laboratories, Microbiological Institute scientists intensified studies on the chemotherapy of malaria. This work has resulted in two effective antimalarial compounds, chloroquine and primaquine, which are now in routine use by U. N. troops in the Far East and among personnel returned to this country.

During the year, one laboratory model of a machine for improved sterilization of blood plasma was constructed, and preliminary testing program was begun. If the hopes felt for the effectiveness of this machine are realized, both the production and safety from contaminating viruses of blood plasma for military and civilian use may be vastly improved.

A new rapid and sensitive flocculation test has been developed which gives promise of having wide application in the diagnosis of a number of diseases. Control of these diseases has been seriously hampered by the slowness and difficulty of diagnostic tests. The results obtained with this new test are equal to or better than those obtained with previously used procedures. It can be performed rapidly, and highly trained personnel are not required.

Other Direct Operations

Review and approval of research and training grants

	Estimate 1952		Estimate 1953		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	113	$505,130	112	$510,930	−1	+$5,800
Travel		50,950		50,950		0
Transportation of things		600		600		0
Communication services		7,700		7,700		0
Rents and utility services		1,000		1,000		0
Printing and reproduction		8,500		8,500		0
Other contractual services		9,250		9,250		0
Supplies and materials		23,400		23,400		0
Equipment		11,200		5,400		−5,800
Taxes and assessments		750		750		0
Total		618,480		618,480		0

GENERAL STATEMENT

This project covers the cost of managing and coordinating research grants and fellowships for the entire Public Health Service on a uniform basis. The funds provide technical, scientific and administrative assistance to the special study sections, and to three National Advisory Councils. The management and fiscal audit of all grants made by the Service to medical and other institutions come under this project. The 1953 estimate will support operations at the 1952 level.

Administration

	Estimate 1952		Estimate 1953		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	171	$208,360	171	$208,500	0	+$140
Travel		1,900		1,900		0
Transportation of things		300		300		0
Communication services		2,600		2,600		0
Rents and utility services		2,700		2,700		0
Printing and reproduction		2,200		2,200		0
Other contractual services		1,800		1,800		0
Supplies and materials		6,700		6,700		0
Equipment		1,500		1,500		0
Taxes and assessments		200		400		+200
Deduct quarters and subsistence		−3,600		−3,600		0
Total direct obligations		224,660		225,000		+340

GENERAL STATEMENT

This activity provides for over-all executive direction and management servicing of all institutes comprising the National Institutes of Health, including the immediate staff of the Director, National Institutes of Health, financial management, purchase and supply, office services, personnel, and the Board of Civil Service Examiners. It includes both positions and other objects costs in support of services provided to the activities financed from this appropriation. Also included are positions only for services provided to those institutes whose categorical appropriations carry funds for their support for subsequent reimbursement to the central appropriation on a formula basis.

BACKGROUND AND OBJECTIVES

Senator CHAVEZ. Gentlemen, are you ready to proceed?

Dr. SEBRELL. Yes.

Senator CHAVEZ. Do you have a prepared statement?

Dr. SEBRELL. I have no prepared statement, but I would like to make a few brief remarks about the National Institutes of Health, and its program.

As you know, most of the members of the committee are familiar with the history of the National Institutes of Health which over the past 65 years has grown from a one-man research effort in one little room, to one of the world's leading research institutions. We have three principal objectives in our program at the National Institutes of Health. These three objectives are, first, to provide continuing support and to assist medical research throughout the United States; secondly, to provide support for young men who are going into the field of medical research, and in order to give this country a continuing supply of manpower in the field of medical research, and our third principal objective is to carry out research on the most important diseases to this country in our own laboratories of the institutes.

In carrying out these objectives, during the past year under the authority of Public Law 692, Congress gave us the authority to create two new institutes, and to reorganize our existing institutes. Those institutes have been created, and I had hoped today to be able to introduce to you the Director of the new Arthritis and Metabolic Diseases Institute, who is Dr. Russell Wilder, who comes to us from the head of the department of medicine at the Mayo Foundation.

That is the Mayo Clinic at Rochester, Minn. Dr. Wilder unfortunately has had a mild heart attack, and is confined to his bed. However, he prepared a statement which with your permission, sir, I would like to offer for the record.

Senator CHAVEZ. Yes; that may be inserted in the record at this point.

(The information referred to follows:)

STATEMENT OF DOCTOR RUSSELL M. WILDER, DIRECTOR NATIONAL INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES NATIONAL INSTITUTES OF HEALTH, PUBLIC HEALTH SERVICE, FEDERAL SECURITY AGENCY

Mr. Chairman and members of the committee, I came to this new National Institute of Arthritis and Metabolic Diseases as its Director a year ago. Before then I was chief of the department of medicine of the Mayo Foundation—that is in the Mayo Clinic. It was there, as you recall, that cortisone was synthesized by E. C. Kendall and its dramatic action on the symptoms of arthritis was discovered by Philip Hench. You will recall, also, that Kendall and Hench together with Reichstein received the Nobel Prize for these contributions. Hench and Kendall were my colleagues. Hench's work was done in my department. I saw all of it from its earliest beginnings.

At the Mayo Clinic I had much to do with diabetes, obesity and thinness, anemia, and other abnormalities of nutrition, goiter, and the diseases of the adrenal glands and of other glands of internal secretion. These are the metabolic diseases. Some of them—those dependent on abnormality of the glands—are also known as endocrine diseases.

Having this background, the invitation to direct this Institute of Arthritis and Metabolic Diseases was for me an inspiring challenge. It remains so, and I only hope that you gentlemen and the Senate to which you will submit your recommendations will share some part of my concern to secure the fullest development of research into the nature of this large and important segment of chronic diseases.

It is important to the Nation. Arthritis in its many forms accounts for disability in about 1 person in every 20. I have recently completed a study of the prevalence of diabetes which indicates that 1 percent of the population has the disease and that for every case so diagnosed four more carry the inheritance. There, indeed, is a public health problem—to prevent those who inherit the predisposition from developing the disease.

We have set up three divisions in our institute—the first to deal with extramural activities; the second for clinical investigations; and the third to carry out basic research at Bethesda.

To head the extramural activities we have selected Dr. Ralph E. Knutti, who formerly was with the Rockefeller Institute. He deals with research grants, fellowships, and traineeships. The number of requests for grants is rapidly growing and bears witness to the greatly increased interest in this area of research. We are collaborating closely in this work with voluntary organizations—the Arthritis and Rheumatism Foundation and the American Diabetes Association, of which I am a past president. In contrast to the older institute at Bethesda, we have not as yet been able to develop special control, teaching, or construction programs, although the need for them is great, as I could show you.

Another division will deal with the clinical investigations to be undertaken in the new Clinical Center. I am immensely pleased that Dr. Charles S. Davidson has agreed to assume the direction of these clinical investigations. He is very highly thought of in the medical world and comes to us from the Thorndike Laboratories of the Boston City Hospital, where his former chief, Dr. George Minot, won the Nobel Prize for his work on the anemias and discovery of effective treatment for the previously fatal pernicious anemia. I also am gratified by the very high caliber of the young physicians whom Dr. Davidson is attracting and who have expressed their interest in joining us when he does.

It is in this area that the only increase in our budget is requested. Included is the minimal staffing of physicians investigators and their assistants along with the nurses and dietitians required for the first year of operation.

Dr. Davidson's special interest at the moment is in the diseases of the liver, diseases such as cirrhosis, and that undoubtedly will represent one of our areas of research. Another area is one in which I am sure we can write a brand new

chapter in the next textbooks of medicine. We shall have a respiratory chamber in our clinical laboratory and with this apparatus shall measure the total energy exchange—all the oxygen that the body uses for long periods of time—a week or more. This is badly needed to obtain new knowledge about the so-called wasting diseases. We also shall be actively engaged in studies of arthritis, the effects of new drugs on this disease, as we or others may develop new drugs, and studies of the basic nature of the several forms of rheumatism. This will complete our starting plan, at least.

Our third division is headed by my Associate Director, Dr. Floyd S. Daft, whose reputation in national scientific circles attests to the excellent opportunities for development in science provided by the laboratories of the Public Health Service. Dr. Daft holds the grade of scientist director in the commissioned corps of the Service.

This division is composed of the basic science laboratories of chemistry, biochemistry, pathology, and biophysics, which formerly were separate segments of the National Institutes of Health. The research accomplishments in these major scientific disciplines has been reported to you from year to year. It has been outstanding and continues so.

The Paul Lewis Award, symbolic of the most important research of the year in enzyme chemistry was awarded this year, for the second year in succession, to a member of one of these laboratories. You have heard of tomatadine, obtained from the tomato plant by the Department of Agriculture. Out of this our chemists have prepared pregnenalone, from which other steroid hormones can be made, even cortisone. Compound F has recently been synthesized through the action of adrenal enzymes on the soy bean. Steroids also have been isolated from yams and other plants which grow in our Southwestern States. Many other projects deserve mention, but time is pressing.

I especially want to express appreciation for the generous support voted by Congress 2 years ago for studies on cortisone and ACTH. Money can save time, as this illustrates. In the short time since those funds were made available as grants, the value of these drugs has been extensively explored. Safer methods for their use have been developed: their areas of usefulness have been delineated, and we know now what we might have had to wait 10 years to learn without that stimulation.

With the help of cortisone, which is normally secreted by the adrenal glands or with the adrenal cortex stimulating hormone, ACTH, rheumatoid arthritis can be treated much more effectively than was possible before. The same is true for rheumatic fever, for certain inflammations of the eye, for asthma and other allergies, and for certain diseases of the skin. A recent study has revealed that undesirable effects can be avoided if the patient who receives them is selected properly. He should not be suffering from tuberculosis or with mental disease. Also dosage must be carefully adjusted to avoid some undesirable effects which would result from overtreatment.

Other immensely important facts have also been forthcoming. With cortisone, a man can be kept living after removal of his own adrenal glands, and removal of these glands has been found to be of value in those severe forms of high blood pressure which threaten life; also in metastatic—that is to say, late inoperable cancer—of the prostate gland in men and of the breast in women.

Notable progress has been made in the search for cheaper sources of these drugs. ACTH is made from the pituitary glands of cattle, and this source is meager. As usually prepared, it is a substance of high molecular weight—about 20,000—far beyond the reach of present-day chemical production. Our grantees have found, however, that a fraction of this molecule, the business end, can be separated from the rest, and that this fraction has a molecular weight of such size as to give us hope for its ultimate production chemically.

Cortisone, formerly called compound E, as I have said, is manufactured in the body by the cortex of the adrenal gland. So is compound F, or hydrocortisone, which acts like cortisone but has been shown to be more effective than cortisone when applied locally as it may be to the eye or in a single joint. In the manufacture of these substances, the chemists' starting point was on bile, which is not abundant. This has prompted an extensive search for other starting materials, and in this search, our chemists at Bethesda, working under Dr. Erich Mosettig, have been active. They have, as you may have heard, prepared pregnenalone from tomatadine, which can be obtained in large amounts from the foliage of the tomato plant. Pregnenalone has been thought to have effects like cortisone. This seems not to be true, but from pregnenalone the chemist can

prepare a number of so-called steroids, such as testosterone, the male sex hormone, and even cortisone.

Our chemists have produced compound F through the action of soybeans on an enzyme they separated from adrenal glands. This is of more theoretical than practical interest and more significant, perhaps is the steady progress they are making in the chemical production of these steroids from yams and other plants—which can be grown in our Southwestern States—and from yeasts which could be made available in unlimited supply.

Among other accomplishments of our laboratories at Bethesda are several which would interest you. One of these is the isolation of Drs. Keresztesy and Silverman in pure form of a new B vitamin, the citrovorum factor. This vitamin is closely related chemically to folic acid, but more active in the laboratory. Its main clinical use will probably be in diminishing the harmful effects of antagonists to folic acid which now are used extensively to prolong the life of leukemia patients. Also of great promise is a method for separating blood platelets from the blood and preserving them for later use by injection into bleeding patients. One of the principal hazards from atomic irradiation is bleeding. It has long been known that one of the results of radiation is a decrease in the circulating platelets, colorless disk-shaped corpuscles found in the blood of all animals. Well, injecting the previously isolated platelets into dogs that were bleeding after radiation stopped the bleeding and prevented death. The study now must be extended to man. Situations such as this are why we need the clinical center in operation. For example, one of our grantees working in a distant hospital has given human platelets to four patients suffering with aplastic anemia and their bleeding was controlled.

N-allylnormorphine, a derivative of morphine, was made some 10 years ago by chemists in Merck & Co. Although it was known to be a morphine antagonist, it attracted little attention until recently when Dr. Isbell at the Public Health Service hospital in Lexington, Ky., administered it in two nearly fatal cases of morphine poisoning with promptly curative effects. In the meantime, Dr. Franklin Snyder, an obstetrician at Harvard Medical School, one of our grantees, was studying the possible advantage of several of the new synthetic substitutes for morphine—methadon, isomethadon, and demerol. Like morphine, however, they proved to be dangerously depressing to the respiration of the newborn infant. It then occurred to Dr. Nathan Eddy of our laboratory of chemistry that N-allyl given to the mother at the end of labor or injected into the umbilical vein of the newborn baby might restore the baby. At his suggestion this was tried by Dr. Snyder first on rabbits, then in the clinic, and it worked. The drug is now awaiting release by the Food and Drug Administration. It promises to prove a Godsend in obstetrics, permitting the control of pain without danger to the newborn baby.

One of the more esoteric regions in our laboratories is the section of Dr. Kornberg, an enzymologist of great repute among his peers. Enzymes are organic catalysts. One or another enzyme is involved at almost every chemical step by which the foods we eat are utilized and other chemical transformations are effected. The findings of Dr. Kornberg and his associates are revealing many of the secrets of metabolism and in time will lead to a better understanding of the changes in metabolism resulting from disease.

Cortisone, in addition to its many other fields of usefulness, has been shown by Dr. Schwarz, of our laboratory of biochemistry and nutrition, to inhibit the development of dietary liver necrosis, a condition which resembles acute yellow atrophy and severe cases of epidemic hepatitis. Compound F is even more effective.

In the field of diabetes, the research of Dr. Evelyn Anderson in our Bethesda laboratories should be noted. She and her associates are finding that experimental lesions made at certain levels of the base of the brain of experimental animals raise the amount of the sugar of the blood and provoke excretion of sugar in the urine, as occurs in diabetes. These effects persist for a month or longer. The duration is important because Claude Bernard 100 years ago provoked a short-lived abnormality of this kind by surgical injury of the brain at a lower level. Other disturbances can also be produced by these technics. Here then is evidence that nerve centers in the brain affect metabolism. Here indeed is an attempt to bring psychosomatic medicine down to earth—to give it an organic explanation.

Many other studies deserve mention, but time is pressing. I can assure you, gentlemen, that a day spent in any of these laboratories at Bethesda is a thrilling experience; that the atmosphere out there—for a scientist at least—is power-

fully stimulating, and that I, coming into the Government from civilian life, have been tremendously impressed by the quality of the work done in this and other institutes located there.

NEW INSTITUTES ORGANIZED

Dr. SEBRELL. He has set forth his plans for the Arthritis and Metabolic Diseases Institute. As the names indicate, they will be primarily concerned with arthritis, diabetes, and similar diseases, and we expect that to go forward very actively.

The second Institute that was created by reorganization was the National Microbiological Institute, and I have the Director of that Institute here, Dr. Victor Haas, who would like to make a brief statement concerning his plans for it.

Senator CHAVEZ. That statement would come in your discussion of direct operations.

Dr. SEBRELL. His Institute has a program other than direct operations.

RESEARCH PROJECTS, GRANTS TO STATES

Senator CHAVEZ. If you will, Doctor, I wish you would start on page 120 on grants to research and training. You have (*a*) research programs, (*b*) research fellowships, (*c*) training stipends. I wish, if you could, you would comment on those items. I take it those grants are made either to schools, universities, or possibly States for this particular work?

Dr. SEBRELL. Yes, sir; these grants are made to various institutions and individuals.

Senator CHAVEZ. The figure is the item of $8,600,000, research projects, grants to States.

Dr. SEBRELL. Mr. Chairman, those figures cut across all three of these Institutes that are in the one appropriation.

Senator CHAVEZ. Yes; I know.

Dr. SEBRELL. They involve the Microbiological, the Arthritis and Metabolical Diseases, and the Neurological Diseases and Blindness Institutes. As I have indicated, the three lines that I mentioned are covered under those figures—research projects being the financial support for research in research institutions throughout the country, the fellowships and th stipends being the support for the young men who are training in research, and the direct operations being our own at Bethesda. They are broken down as follows: For Arthritis and Metabolic Diseases, the funds for research projects amount to $1,345,000; for Neurological Diseases and Blindness, $1,015,000; for the Microbiological Institute, $1,950,000; for general medical research, $4,290,000. These make up the $8,600,000.

Senator CHAVEZ. And constitute the 933 projects involved?

NUMBER OF RESEARCH PROJECTS

Dr. SEBRELL. They are the 933 projects; yes.

In the research fellowships, I can give you the number of fellowships, if you would like to have them, or the amount of funds for each of those Institutes.

Senator CHAVEZ. You might insert that in the record, if you will.

Dr. SEBRELL. All right, sir.

(The information referred to is as follows:)

	Number of fellowships	Amount
Arthritis and metabolic diseases	26	$76,900
Neurological diseases and blindness	17	51,400
Microbiology	41	120,000
General medical research	134	400,700
Total	218	649,000

INCREASE IN OPERATIONS BUDGET

Senator CHAVEZ. Go to direct operations.

Dr. SEBRELL. In direct operations, the total amount for 1953 is $6,697,520, which represents an increase of $1,084,660, which is offset by some decreases, so that the total amount of increase for all operations is $1,070,000.

Senator CHAVEZ. Will you comment briefly on why the increase of $1,070,000? That is on page 123.

NEW CLINICAL CENTER

Dr. SEBRELL. Yes, sir. That increase is almost completely concerned with the beginning operation of the Clinical Center. As you know, the Congress authorized, and we have been planning and building for some time this new facility which we have called the Clinical Center. This will enable the National Institutes of Health to conduct research on patients, which we have never had the facilities to carry out. This will convert or will add the necessary facilities to add clinical research to our present activities. This in our opinion will make it one of the most important research centers in the world. It will be something that has been badly needed in bringing together men in basic science, the physiologists, the biochemists, the pharmacologists, the physicists, with the clinical research men who are working with patients. We will then be able to concentrate on the most important diseases the scientific skills and apparatus that are needed to bring us clinical advances in some of these conditions, such as cancer and heart disease, and the neurological diseases, and many others.

This building has been under construction for the past 4 years. I brought along a couple of photographs, sir. These were taken just toward the end of January to show you the stage of completion of the building. We have been informed by the Public Buildings Administration that the construction will be at such a stage that we should be able to begin to take patients in April of 1953. This budget is planned with that in mind.

The building is going along very satisfactorily. There are a couple of budget items that I perhaps should mention at this point because they will appear in the budgets of the other institutes. The National Institutes of Health now furnish certain centralized services to the laboratory research areas and of course will have to administer centralized hospital services for patients from all the various institutes. The funds for these centralized activities are carried in the various appropriations as shares for each institute's program, and transferred to the National Institutes of Health for operation of the central services.

VISITING SCIENTISTS PROGRAM

Another program that appears in the various institutes is the one we have called the visiting scientist program. We are very anxious to bring into the institutes visiting professors, prominent research men from various medical schools and research laboratories to work on special problems for which they would not have the material or facilities at home. They could come in here and work temporarily and then return to their home laboratories. That item appears as a visiting scientist program in the various other institutes. I mention that because it may be mentioned as the other institutes present their programs.

Senator CHAVEZ. You have the activities, direct operations, research, enumerated on page 123.

Dr. SEBRELL. Yes, sir.

PERSONAL SERVICES

Senator CHAVEZ. Personal services, $5,249,530, or a request of $824,000 over last year's appropriation. Those are personal services connected with the activity in the city of Washington or Bethesda?

Dr. SEBRELL. They are in connection with this clinical facility, and are broken down, I believe, on page 127. The other activities at the Institutes, with the exception of the Clinical Center, are being held at just about the same level of operation. This increase in positions is all in connection with opening and carrying on the research in the clinical center.

Senator CHAVEZ. Commencing in 1953, if you open up in April 1953?

Dr. SEBRELL. Yes, sir.

TRAVEL COSTS

Senator CHAVEZ. Will you explain a little about this travel? You have an item here of travel of $82,650.

Dr. SEBRELL. Yes, sir. That estimate is based on the travel of the personnel who are required to visit various research institutions throughout the country for obtaining the latest data in connection with their research problems, and people who are research people and professional people who have to attend scientific meetings for the purpose of receiving and exchanging research data with their colleagues. Some of the funds are for the necessary transfer of patients and attendance from various parts of the country into the Clinical Center. We think that some people may need to have an attendant travel with them in order to reach here.

It also includes a number of professional consultants whom we use in planning our program.

Senator CHAVEZ. Is there a breakdown of the amounts of funds used for consultants?

Dr. SEBRELL. Yes, sir. We estimate the travel for the consultants at 100 days of travel for 20 consultants at an average of $35 a day, or $3,500. That takes care of the consultant travel in this particular item.

Senator CHAVEZ. I see that communication services are running into money. Of course you have to put in long distance telephone calls once in a while.

Dr. SEBRELL. Yes, that is occasioned by the large telephone installations for the big clinical center that requires the installation of a switchboard and a lot of services that we do not have now because of the large size of this, and the telephoning incident to having patients and seriously ill patients, and things of that kind.

Senator CHAVEZ. Would it also include postage and telegram expenses?

Dr. SEBRELL. Yes, it would. That would include the local and toll telephone charges, and postage and telegraph obligations.

UTILITY SERVICES

Senator CHAVEZ. Why rents and utility services? You have your own utilities there, do you not?

Dr. SEBRELL. No, sir. We have to pay for electricity and water and gas. We get the electricity from the local Potomac Electric Power, and the water from the local commission, and the gas from the local gas company.

OTHER CONTRACTUAL SERVICES

Senator CHAVEZ. What do you refer to as "Other contractual services," a $100,000 item?

Dr. SEBRELL. These involve primarily a number of items, such as the cost of repair to the vehicles on the place, the purchase of radioactive materials for the radioisotope work, the maintenance of some of this complex scientific equipment that is very expensive, and has to have special repairmen work on it, like the electron microscopes, and instruments of that kind. Sometimes the instruments have to be altered for specific purposes, and then we have a number of various shops and office equipment repairs.

Senator CHAVEZ. Supplies and materials, those are general supplies for the institution?

Dr. SEBRELL. Yes. They will provide the chemicals and surgical and medical supplies, the food for the patients and janitorial service, fuel oil, laundry supplies, and things of that kind.

Senator CHAVEZ. What do you refer to as equipment? Do you mean general equipment to service the facility?

Dr. SEBRELL. They involve things like library books and adding machines, and surgical and scientific instruments, and photographic equipment.

HOUSING PROGRAM

Senator CHAVEZ. Doctor, it seems to me that last year when you were discussing this item, you told us something about a housing problem that you had there. What is the situation as to housing now?

Dr. SEBRELL. The situation at the present time is that all the possibilities were gone into very thoroughly, and plans are under way for an 80-unit apartment house with the same sum of money that was available. Preliminary plans are being drawn for that to house the necessary emergency personnel that will be needed for the operating rooms and night operations of the Clinical Center.

Senator CHAVEZ. Did not this committee consider a Wherry project last year?

Dr. SEBRELL. Yes, sir.

Senator CHAVEZ. And there were some differences of opinion locally?

Dr. SEBRELL. Yes, there were differences of opinion locally, and we went into that very carefully and very thoroughly. The final result was that the project is to be built and operated with Federal funds.

Senator CHAVEZ. You could not get the local people to agree to have them construct it with personal funds under the Wherry Act?

Dr. SEBRELL. The local citizen associations, of which I consulted with approximately 10, I believe, were strongly opposed to having an apartment house there constructed with private funds or privately operated. This is in an area which is zoned for residential purposes, and these citizen associations were very vigorous in their opposition to opening up the zoning, which might result in the growth of apartment houses in that area. They did not object to us having one on our own grounds run by the Federal Government for the emergency personnel in the hospital. They said we had to have that.

Senator CHAVEZ. And have the Federal Government spend the money to do it.

Senator THYE. Doctor, will you charge the occupant regular rental for the use of that apartment?

Dr. SEBRELL. Yes, sir. They will pay rental for those apartments. If they are commissioned officers, they will, of course, pay the regular commissioned officer allowance according to their grade as provided by law, and if they are civil-service employees, they would pay a rate equivalent for similar housing in that area.

HOUSING MAINTENANCE

Senator THYE. I note an item here of $3,000. That is the estimate for the operating cost of these 80 units. Why could not that be a part of the expense charged to the entire cost to the occupant?

Dr. SEBRELL. You mean this $3,000 for maintenance of housing?

Senator THYE. Yes, on page 129. Utilities cost of $3,000 is estimated for the operation of the 80-unit-type dwelling to be constructed at the National Institutes of Health. Why would not that be just part of the entire expense there, and be absorbed as part of the rental cost?

Dr. SEBRELL. Would you answer that, Mr. Harlow?

Mr. HARLOW. Yes. Senator, the problem is this. The payment that these people make is not actually money. What we do is deduct from their salaries the rental charges for these properties. So that results in a reduction in our personal services expenditure. Then we have to carry in these other objects, the actual amount of expenditures that we will make on the properties. Actually the amount deducted from the employees' salaries almost invariably is more than the operating expenses of the quarters. In other words, the net income from the quarters eventually returns to the Government the amount of money that is invested in them. But as far as the budgetary effect of these transactions is concerned, we charge less to personal services, and more to other items.

Senator CHAVEZ. Does the planning contemplate that eventually the houses would be paid for in rentals?

Mr. HARLOW. That is our general experience. I do not know how it will work out on this particular facility.

Senator CHAVEZ. What do you estimate will be the time it takes?

Dr. TOPPING. Mr. Chairman, may I answer that?

Senator CHAVEZ. Yes.

Dr. TOPPING. You will find in the appropriations for 1953, since those quarters will be opened roughly just in the fourth quarter, an item of about $20,000 for the upkeep of the quarters, but the best way to make the comparison is in fiscal 1954, when they will be open the whole year. At that time the projection of costs looks as though there will be in the fiscal 1954 budget a request for $32,000 for the upkeep of the 80 units, and a return to the Governmental through rental of about $68,000. The difference between $32,000 and $68,000 would be the difference between cost and return to the Federal Government through rental.

MAINTENANCE PERSONNEL

Senator CHAVEZ. I notice you are asking for maintenance of houses.

Dr. TOPPING. That is right, sir.

Senator CHAVEZ. Eighteen positions. $12,400.

Dr. TOPPING. Eight positions, sir, and other objects make up the difference of about $8,000. But in fiscal 1954, a full year, when things settle down, it will be $32,000 expense and $68,000 income.

Senator CHAVEZ. Anyway, you are making your plans for the maintenance with the idea in mind eventually that the rentals will amortize the units.

Dr. TOPPING. Yes, sir.

Dr. SEBRELL. That is correct, sir. We fully expect the rentals of this place to be greater than the cost of operation.

Senator CHAVEZ. But the investment itself, will that ever be paid for from the rental?

Dr. SEBRELL. It should be. As Dr. Topping indicates, we expect to return the first year $68,000 versus an operating expenditure of $32,000.

Senator CHAVEZ. And you will apply the difference to the original investment?

Dr. SEBRELL. The return to the Government could be applied to the original investment.

APARTMENT UNITS AND RENTALS

Senator THYE. Is this apartment unit, for instance, what you term one- and two-bedroom apartments?

Dr. SEBRELL. Yes, sir. Most of them are what you call efficiency apartments. They are one room and bath apartments. There are a few one-bedroom, and very few two-bedroom apartments.

Senator THYE. Then the efficiency apartment, what would you charge per unit for that?

Dr. TOPPING. I do not have that right here, sir. I can give you a breakdown on the distribution and size of the apartments. In the total of 80 apartments there will be 49 efficiency apartments, 26 one-bedroom apartments, and 5 two-bedroom apartments.

Senator THYE. But you do not have the figures of what each of those apartments will rent for?

Dr. TOPPING. I have them now, sir.

Senator THYE. Very well, sir.

Dr. TOPPING. The efficiency apartments are at an average of $67.50 for certain categories, with a range of $60 to $75 for others that occupy those apartments. In the one-bedroom apartments, from $75 to $90 a month, depending upon the grade that occupies the apartments, and in the two-bedroom apartments a range from $90 to $120 a month, depending on the grade of the individual who occupies the quarters.

Senator CHAVEZ. Of course, they will be rented only to personnel connected with the institute.

Dr. TOPPING. Employees of the National Institutes of Health, sir.

Senator CHAVEZ. With respect to the figures you have given to the monthly rentals, is that for the empty place? Do they have to furnish it themselves?

Dr. TOPPING. That is unfurnished. Some of those will be furnished in certain minimum furniture that is allowed by law, if they are occupied by certain types of personnel.

Senator CHAVEZ. Anything further, Dr. Sebrell?

NATIONAL MICROBIOLOGICAL INSTITUTE

Dr. SEBRELL. Mr. Chairman, I would like to have Dr. Haas tell you a little bit about the program of the Microbiological Institute, if that is appropriate.

Senator CHAVEZ. We would be glad to hear him.

Dr. SEBRELL. Dr. Haas comes to us with a brilliant record in research in infectious and parasitic diseases. He was with General Stilwell in the China-Burma-India theater during the war.

Senator CHAVEZ. I know I want to hear him.

Dr. SEBRELL. He was in charge of the health activities for some of the big construction things there, and he came back and was stationed in our malaria unit in Memphis for several years. He is here with me to tell you just a little bit about how he plans to spend the money on some infectious diseases. Dr. Haas.

Senator CHAVEZ. You may proceed in your own way. We are very informal, Doctor, so you may proceed.

Dr. HAAS. The Microbiological Institute is concerned with research in the infectious and parasitical diseases. While we have seen very gratifying progress in these fields in the past few years, there still remain many problems with which we must deal. I would like to report to you on some of these problems and what we are doing about them.

Senator CHAVEZ. Can you at that point insert in the record at your convenience what composes that type of disease?

Dr. HAAS. Some of that will come out in my subsequent testimony.

Senator CHAVEZ. Very well, sir.

RESPIRATORY DISEASES

Dr. HAAS. First, I would like to mention the respiratory diseases. In this group we include such things as influenza, conditions that are called the common cold, grippe, intestinal flu, winter diarrhea, and things of that sort. These respiratory illnesses are sometimes re-

ferred to as minor respiratory illnesses, but that is only because they do not kill very many people. Actually they are very major because of disability, particularly industrial disability. All of us suffer from these conditions. Hardly a winter goes by when some of us do not have them, or people in our families have them. They cause loss of time from school and all our activities. They constitute a major cause of total illness in the United States population at any given time.

In respect to this group of illnesses there are a lot of things we still do not know. For many of them we do not even know the specific cause. We do not know very much about the methods of spread. We have no good means of prevention for most of them, and no satisfactory means of treatment. At Bethesda, our scientists have developed over the past few years a method of study which combines investigation in the field, plus research in the laboratory, a method which has been successfully employed in the study of such diseases as Q fever in California, devil's grippe, so-called, in Texas, a disease of children here in Montgomery County called herpangina, a form of infectious disease of the eye, infectious conjunctivitis in the South. This infectious study in which we go into the community, observe ill people in their homes, work, and school, and bring back material and blood and throat washings and the like for study in the lab, has been successful in connection with these diseases I have mentioned. We are now applying that to the respiratory diseases—influenza and these other conditions.

INFECTIOUS JAUNDICE

Another illness which concerns us greatly is that of infectious hepatitis. Hepatitis means disease of the liver, and for common discussion we may use the term jaundice, since that is one of the manifestations of this disease. Infectious jaundice really comprises two diseases. One is an epidemic type which spreads about the community. Another is a type called serum jaundice, which results from blood transfusion, and from the administration of blood plasma and serum. This latter type has become very important in recent years. Paradoxically, as surgery and medicine have improved through the use of blood and blood derivatives, this problem of serum hepatitis has increased and become more serious. At the present time the total infectious jaundice or hepatitis combination is said to be the most important source of noncombat casualties in Korea.

Our scientists at NIH and others pioneered in World War II research in hepatitis, and they were able to show that this disease is caused by a specific virus which is circulating in the blood of some individuals who happen to be donors. Their donated blood is taken and given to recipients either as blood or plasma. This virus, which causes the disease, can be inactivated by ultraviolet irradiation. That was established by our scientists in recent years. Just within the past year we have been able to improve the method of irradiation of ultraviolet. So our mechanical operation of the irradiating device is now more subject to rigid control.

Nevertheless, we are still getting hepatitis or infectious jaundice. Some is the epidemic type, spreading about in the community. Some of it, too, appears still to follow the administration of blood and blood

plasma. So we still have a problem requiring further research before this group of diseases can be brought under control.

In passing, I would like to mention in respect to this administration of blood, we are now licensing 122 blood banks in the United States, 91 of which are part of the national defense blood program.

CIVIL DEFENSE SECTION RESEARCH PROGRAM

I would like also to speak of our concern with problems of national defense, particularly civil defense, as those problems apply to infectious diseases. In general, we are concerned with the fact that for any infectious disease it is important to have better and faster methods of diagnosis than we have. There is still much improvement desirable in methods of immunization, better vaccination and easier to give and longer effects. We still need better treatment of diseases. In the light of civil defense, particularly if one considers the possibilities that biological attack could be used against us, these problems take on increasing importance. To meet the needs in these areas, we have during the past year organized what we call a sectional research program. This has been designed to stimulate the interest and secure the participation of competent scientists throughout the United States, wherever their skills and resources are available. At present more than 80 non-Federal laboratories, chiefly private institutions, are collaborating in this program, and we feel to get the ideas and the help of these scientists into the total program will enable us to get the answers much faster than were we to attack them alone by ourselves.

The participation of these scientists is being supported by financial grants-in-aid through the regular reseach grants mechanism. The knowledge and the skill that these scientists have who collaborate in the program will be made available as needed by the official agencies in times of stress or national need. Should the national situation improve, should these skills and the participation of these laboratories never actually be acutely needed in the national situation, we will still be on sound ground in expecting their interest and participation to add to the total increase of knowledge that will be of great value to us in meeting our normal regular peacetime health needs.

RAPID DIAGNOSIS

In respect to one of the items that I have mentioned, rapid diagnosis, we have made some progress in recent months ourselves at Bethesda in the development of a new type of precipitant test which promises to cut some hours, perhaps days, from the diagnosis of some infectious diseases.

I would like to mention a few other diseases which occupy our attention.

Malaria, in spite of many advances that have been made, is still a problem. There are still questions concerning the best drugs for the treatment of malaria, and we are now working in collaboration with the Department of Defense in a research project testing modern drugs in human volunteers against malaria.

Schistosomiasis, a disease not prevalent in the United States but spread over the great regions of the world where the United States

has economic and other interests, also occupies our interest and our attention. Here we have tried by the development and testing of new compounds to attack the snail which serves as the reservoir or intermediate host of the parasite causing this disease.

We make yellow fever vaccine. Our laboratory at Hamilton, Mont. is the only one which makes yellow fever vaccine in the North American Continent.

There have been other problems and more progress in this general field of infectious and parasitic diseases, but in view of the time perhaps I ought not to dwell on more of them in detail.

Senator CHAVEZ. A very nice statement, Doctor.

Senator Thye?

Senator THYE. I have no questions.

NATIONAL INSTITUTE ON NEUROLOGICAL DISEASES AND BLINDNESS

Senator CHAVEZ. Is there anything further, Doctor?

Dr. SEBRELL. Mr. Chairman, I mentioned two of three institutes. There is just one other group of very important diseases in the remaining new institute we have created under your authorization, that of neurological diseases and blindness. The new director of that institute is Dr. Pearce Bailey. During the war he was with the Navy and trained the medical officers in neurological diseases, and then built up the neurological service in the Veterans' Administration. He has also been serving as a professor of neurology of Georgetown Medical School. I would like Dr. Bailey to tell you just very quickly about his plans.

Senator CHAVEZ. Dr Bailey, you may proceed.

Dr. BAILEY. Mr. Chairman, members of the committee, this Institute of Neurological Diseases and Blindness is rather new. It has been activated only a little over 4 months. In fact, it is not only new to this country, but it is new all over the world. There has never been before an organized program to investigate the important neurological and sensory diseases.

DISEASES OF THE NERVOUS SYSTEM

The neurological diseases are essentially diseases of the nervous system. The nervous system consists of the brain, the spinal cord and the nerves. It is the most intricate and complicated system, and probably the most important of all the bodily systems. The brain, as you may know, is a very complicated instrument. There are over 10 billion nerve cells in each human brain, and they are connected by the most elaborate communication system of nerves. The spinal cord, which is really an extension of the lower part of the brain down the central axis of the body, is a very important organ. The spinal cord, by the way, is only a little over a foot and a half in length. It weighs less than a tenth of a pound, and its diameter is no greater than this fountain pen. That little instrument controls all sensation, all feeling and all power of movement below the neck. That is your general anatomical background then of the nervous system.

There is a general feeling that diseases of the nervous system are rare and odd diseases. This is not true. About 20 million Americans suffer from these diseases, about 10 million from serious forms and

about another 10 million from less-serious forms. These diseases are particularly important, becaue they affect younger children and adults in the very prime of life. In most of them the causes are unknown, and therefore there is no specific cure.

The initial attack of these diseases very often is not fatal, so what you get is a large army of disabled and handicapped individuals who continue through life as long, very often, as the average man lives.

There is an unfortunate thing about these diseases, and that is they have very long Greek names, and they have no nicknames, except maybe poliomyelitis, which has been known as polio and infantile paralysis. But I will mention the other diseases and say a word about the common ones.

Of the serious disorders, there are cerebral palsy, epilepsy, Parkinson's disease, multiple sclerosis, hemoplegia, muscular dystrophy, brain tumors, meningitis, glaucoma, and cataract, as you know, is an affliction of the eye.

Senator CHAVEZ. Is that latter a nerve disease?

Dr. BAILEY. This Institute really covers neurological diseases, and sensory disorders. The sensory diseases are diseases of the eye and ear. They are very closely related to the nervous system. In fact, in respect to the nerve which supplies vision, as you see an image, it is transmitted to the back of the brain, and then to the front of the brain before you get your final interpretation of the image. That is actually part of the brain. So you see the close relationship between the eye and the brain.

CEREBRAL PALSY

One of the common diseases is cerebral palsy, a disease of the children, about 400,000 cases in this country. The difficulty there is that the disease involves the area of the brain which controls muscular movements. The intelligence of these children is not usually retarded. It is not as a rule a progressive disease. In other words, it is a disease for rehabilitation and the actual clinical picture you see is a bright and willing child who is paralyzed to some extent, who may show abnormal purposeless movements which it cannot control, and may have some impairments of speech because a part of the brain which controls muscles of speech is affected.

PARKINSON'S DISEASE

Another common disease, of which there are about 1,000,000 in this country, is Parkinson's disease, which very often follows chronic encephalitis. Parkinson's disease is a disease of the area of the brain which controls bodily posture, the general tone of your muscles, and coordination of movements. You probably all have seen cases of Parkinson's disease. The advance cases are very easy to recognize at a glance. The patient is bound by a muscular rigidity, and due to that he has sort of a mask-like expression on his face. He rarely smiles. He rarely blinks his eyes. He is rigid with a tendency to lean forward, and his movements are very slow. He takes small steps. He seems to sort of move in one piece, and with that you very often have this uncontrollable tremor which he desperately tries to conceal.

EPILEPSY

Epilepsy is another common disorder, about 1,000,000 Americans have it. That, as you probably know, is characterized by spells of unconsciousness, of confused behavior or even convulsions. Epileptic seizure is nothing more than the external manifestations of sudden uninhibited electrical discharge from the cells of the brain. Between spells the patients are usually normal. And intelligence, unless the seizures are associated with progressive brain disease, is usually normal. In fact, some of our brainiest men in history have been epileptics: Mohammed, Alexander the Great, Lord Byron, just to take a few examples.

Senator THYE. Doctor, if I might interrupt at this point, are you covering any of the causes? Have you made progress in that field of research?

Dr. BAILEY. Very definite progress has been made with very little money.

Senator THYE. Are there any medical applications that will give relief or give the individual any certainty that he is not going to be so afflicted while he is driving his car, for instance?

Dr. BAILEY. With modern treatment methods and modern medication, about 80 percent of all epileptic seizures can be controlled. The real difficulty with epilepsy right now is the employment problem, and that is where you lose manpower. Even if his seizures are controlled, if a man admits he has epilepsy, he is certain to receive a brush-off from an employer, and that applies to a Government agency.

Senator CHAVEZ. You can readily see that. He might become a hazard working with machines.

EMPLOYMENT OF EPILEPTICS

Dr. BAILEY. I mean even in suitable jobs. In suitable jobs with the seizures controlled nevertheless the employment of the epileptic is a great problem because people say, "He may have a seizure, and other people see it, and it will disturb morale, and if we can get somebody else, we had better do it."

Senator THYE. That would be natural.

Dr. BAILEY. Yes.

Senator THYE. And that was what prompted me to ask the question whether you had advanced far enough so that you could give not only the employer but the individual himself some assurance that it could be controlled. If you would have what we normally would call a fit or a seizure, if it takes place in public, it frightens not only the public but, if it takes place in a position where the public would witness it, it would be a reflection upon that man.

Dr. BAILEY. That is correct, yes; but right now, with the advances and the inventions of the electroencephalograph, and new experimental graph aids it is presumed that all epileptic seizures can be controlled.

Senator THYE. And if they take the medical treatment over a period of time, or at certain times, it is a certainty that they would not have such a spasm?

Dr. BAILEY. You never can give a guaranty. You cannot give a guaranty that a normal man would not have an epileptic seizure.

Senator THYE. Yes, but you would not expect it of a normal man.

Dr. BAILEY. Everybody has a certain resistance to seizure. In some people it is greater, and in some people it is lower. But in some people without epilepsy, if they put themselves to a certain strength they might have an epileptic seizure, and do have.

Mr. HARLOW. I think I might make a practical answer to your observation, Senator. A young woman I know, as long as she keeps up with the medication she has no trouble; but if she gets careless and sometimes neglects it, then she is apt to run into trouble.

Senator THYE. But you have advanced far enough so if they abide by the instructions of their doctors and take the medicine, they are not apt to have any trouble?

Dr. BAILEY. That is correct.

Senator THYE. Thank you, Mr. Chairman, for the privilege of interrupting.

MINOR NERVOUS DISORDERS

Dr. BAILEY. In addition to those serious disorders, there are about 10 million who suffer minor disorders of the nervous system, such as neuralgia, neuritis, sciatica, and diseases of that sort. Most of the cases are not known and there is no specific cure for them.

MODERN STUDIES OF THE BRAIN

Now, just before closing, I would like to say a word that advance has been made in these fields, to the extent that electronic and other precision instruments are becoming available, so that we can actually study the brain by remote control. Before that it was difficult because the brain is in a bony box, and the exposure of certain parts of it might be fatal to the patient; but now it can be studied from a distance.

Also, there has been a great advance in the drug therapy, and also there has been a great advance in brain surgery, the removal of tumors, alleviation of pain, and other things.

There are many new fields that are coming in, such as radioisotope tracer techniques, which will prove to be very valuable, and also research in rehabilitation methods.

We have found in the Veterans' Administration, with these types of patients, that about 70 percent of the bedridden patients could be returned to their homes or to jobs. In addition to that, something very new has come out in regard to the regeneration of nerve bodies. The nervous tissue, the tissue of the central nervous system, unlike other tissues, once it is injured remains so and the disability is permanent. We have no method of repairing nervous tissue.

Now, some experiments are beginning to show on animals that this might be possible which, of course, will give a picture of hope to the paraplegics and others, those with brain injuries and others. Unfortunately, the provisions in ophthalmology and others which treat blindness are not very good.

Many of the medical schools have poor departments in ophthalmology. I say we can control all of those seizures, and remedies only to the extent of epileptics getting that type of treatment because there

are not enough doctors who know about it. So there is room for education, there is room for research, there is room for general support.

I think we are on the verge of really accomplishing a landmark in the history of medical science.

Thank you.

Senator CHAVEZ. I think, Doctor, that you have made a wonderful statement. There is no man in this committee who does not appreciate this for the interests of society and civilization itself. You have made a wonderful statement, and I thank you.

RESEARCH PERSONNEL

Dr. SEBRELL. Mr. Chairman, this has been, very hurriedly, a method to let you meet and see the caliber of the senior research men we are getting in the National Institutes of Health. We have not only the senior men of high quality, but we are obtaining young men of very high quality.

We think the best in the medical research field are with us. One of the highest honors in the field of science in this country is election to the National Academy of Sciences, and in the past few years we have had four of our scientists at Bethesda elected to the National Academy. They only elect 30 men each year.

Another recognition of the caliber of the men is the receiving of awards in the field of science. The American Chemical Society, for example, has an award called the Paul Lewis Award. For 2 years in a row, that has been won by two young scientists at the Institute.

In the field of tropical medicine, the American Society of Tropical Medicine has an award called the Bailey K. Ashford Award that has been in existence for 10 years. It has only been awarded six times, and of the six, three have been awarded to scientists at the Institute.

I merely mention those things to emphasize the high caliber of men who are dedicating their life to medical research in the Institute. I did not bring with me evidence of our scientific output because of its bulk. It is composed of hundreds of scientific papers which represent the culmination of their work.

Senator, we would be glad to have you or any member of the committee visit us at any time. We are interested, ourselves, and we think we can show you some interesting work in many fields of the sciences.

Senator CHAVEZ. I have been handed a table showing details of the Agency's request of the Budget Bureau, for "A" items and for "B" items, by activities, and I shall place this table in the record at this point.

(The table referred to follows:)

Operating Expenses, National Institutes of Health

Obligations by activities

Description	1951 actual		1952 estimate		1953 estimate requested of Budget Bureau						1953 President's budget	
					Within ceiling		Over ceiling		Total			
	Position	Amount	Position	Amount	Position	Amount	Position	Amount	Position	Amount	Position	Amount
1. Grants for research and training:												
(a) Research projects	------	$7,500,542	------	$8,615,000	------	$9,065,000	------	$4,435,000	------	$13,500,000	------	$8,600,000
(b) Research fellowships	------	531,320	------	649,000	------	649,000	------	170,000	------	819,000	------	649,000
(c) Training stipends	------	0	------	86,000	------	36,000	------	164,000	------	200,000	------	86,000
(d) Teaching of medical subjects	------	0	------	0	------	0	------	1,800,000	------	1,800,000	------	0
2. Direct operations:												
(a) Research	1,256	5,230,841	1,349	5,612,860	2,767	7,525,045	516	1,980,400	3,283	9,505,445	2,394	6,697,520
(b) Other direct operations:												
(1) Review and approval of research and training grants	108	515,941	113	618,480	117	655,965	11	53,600	128	709,565	112	618,480
(2) Administration	172	227,239	171	224,660	171	242,990	0	0	171	242,990	171	225,000
Total direct obligations	1,536	14,005,883	1,633	15,806,000	3,055	18,174,000	527	8,603,000	3,582	26,777,000	2,677	16,876,000

Senator CHAVEZ. Is there anything further, Doctor?
Dr. SEBRELL. That is all.

NATIONAL CANCER INSTITUTE

SALARIES, EXPENSES, AND GRANTS

STATEMENTS OF DR. JOHN R. HELLER, DIRECTOR, NATIONAL CANCER INSTITUTE; DR. WILLIAM H. SEBRELL, DIRECTOR, NATIONAL INSTITUTES OF HEALTH; DR. NORMAN TOPPING, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH; DR. DAVID E. PRICE, ASSOCIATE DIRECTOR, NATIONAL INSTITUTES OF HEALTH; ROY L. HARLOW, CHIEF FINANCE OFFICER; AND M. A. STEPHENS, BUDGET OFFICER, FEDERAL SECURITY AGENCY

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$20,086,000	$19,500,000	$15,371,000
Transferred to "Salaries and expenses, defense production activities, Federal Security Agency," pursuant to Public Law 253		−24,000	
Adjusted appropriation or estimate	20,086,000	19,476,000	15,371,000
Proposed supplemental due to pay increases		200,000	
Applied to contract authorization	−5,000,000	−4,625,000	
Total available for obligation	15,086,000	15,051,000	15,371,000
Unobligated balance, estimated savings	−420,770		
Obligations incurred	14,665,230	15,051,000	15,371,000
Comparative transfer to—			
"Assistance to States, general, Public Health Service"	−38,365	−45,000	
"Salaries, expenses, and grants, National Heart Institute, Public Health Service"	−200,000		
Total obligations	14,426,865	15,006,000	15,371,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Grants:			
(a) Grants for research and training:			
(1) Research projects	$3,129,079	$3,100,000	$3,100,000
(2) Research fellowships	523,771	500,000	500,000
(3) Teaching of medical subjects	2,037,470	2,040,000	2,040,000
(4) Training stipends	359,888	375,000	375,000
(b) Grants for detection, diagnosis, and other control services	3,033,908	3,100,000	3,100,000
(c) Grants for special control projects	926,313	900,000	750,000
2. Direct operations:			
(a) Research	3,639,162	4,137,000	4,700,000
(b) Other direct operations:			
(1) Technical assistance to States	380,072	415,000	378,000
(2) Review and approval of research and training grants	62,445	85,000	78,000
(3) Administration	334,757	354,000	350,000
Total obligations	14,426,865	15,006,000	15,371,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	550	631	676
Full-time equivalent of all other positions	10	7	7
Average number of all employees	585	594	595
Average salaries and grades:			
General schedule grades:			
Average salary	$4,020	$4,528	$4,522
Average grade	GS-6.2	GS-6.2	GS-6.2
Crafts, protective, and custodial grades:			
Average salary	$2,522	$2,878	$2,883
Average grade	CPC-3.3	CPC-3.3	CPC-3.3
Ungraded positions: Average salary	$7,100	$11,708	$11,106
Personal services:			
Permanent positions	$2,456,276	$2,801,103	$2,839,336
Part-time and temporary positions	32,101	29,650	28,559
Regular pay in excess of 52-week base		9,196	9,076
Payment above basic rates	15,352	14,726	14,694
Total personal services	2,503,729	2,854,675	2,891,665
Travel	67,249	72,250	74,150
Transportation of things	9,720	6,750	11,750
Communication services	15,068	15,900	15,900
Rents and utility services	1,435	1,500	1,500
Printing and reproduction	44,310	61,575	60,960
Other contractual services	51,500	179,000	192,200
Reimbursement to "Operating expenses, National Institutes of Health, Public Health Service"	946,152	1,058,180	1,585,480
Supplies and materials	417,774	412,030	410,355
Equipment	361,879	331,000	263,100
Grants, subsidies, and contributions	10,010,429	10,015,000	9,865,000
Taxes and assessments	1,962	3,900	4,700
Subtotal	14,431,207	15,011,760	15,376,760
Deduct charges for quarters and subsistence	4,342	5,760	5,760
Total obligations	14,426,865	15,006,000	15,371,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$16,141,828	$10,808,091	$5,211,025
Obligations incurred during the year	14,665,230	15,051,000	15,371,000
	30,807,058	25,859,091	20,582,025
Deduct:			
Unliquidated obligations, end of year	10,808,091	5,211,025	3,810,779
Adjustment in obligations of prior years	295,401		
Obligated balance carried to certified claims account	70,379		
Total expenditures	19,633,187	20,648,066	16,771,246
Expenditures are distributed as follows:			
Out of current authorizations:			
Out of appropriations to liquidate prior-year contract authorization	3,329,934	3,125,000	
Out of new obligational authority	11,196,707	11,516,000	12,025,000
Out of prior authorizations	5,106,546	5,815,066	4,738,246
Out of anticipated 1952 supplemental for pay increases		192,000	8,000

New positions requested, 1953

2a. RESEARCH

Title	Grade	Positions	Amount
Medical officer	GS-15	2	$21,600
Do	GS-13	1	8,360
Scientist	GS-13	2	16,720
Medical officer	GS-12	4	28,160
Scientist	GS-12	1	7,040
Medical officer	GS-11	1	5,940
Scientist	GS-11	2	11,880
Do	GS-9	4	20,240
Do	GS-7	1	4,205
Clerical	GS-5	1	3,410
Scientist	GS-5	4	13,640
Technician	GS-5	4	13,640
Stenographer	GS-4	4	12,700
Technician	GS-4	4	12,700
Do	GS-3	3	8,850
Do	GS-2	7	19,250
Grades established by act of July 1, 1944 (42 U. S. C. 207):			
Director		3	30,465
Senior		2	17,572
Ungraded positions at annual rates—rates more than $4,600: Scientist		2	19,200
Total		52	275,572
Less lapse			148,572
Net			127,000

Grants for research and training

Research projects:

Grants, subsidies, and contributions:

Estimate, 1952	$3,100,000
Estimate, 1953	3,100,000

This activity currently supports 280 research project grants to research investigators in non-Federal institutions throughout the country, which play a vital role in the total program of cancer research.

Among the notable accomplishments recently reported by scientists aided by cancer institute grants are the following:

The discovery of ways of getting a fluorescent dye into body tissues as an aid to cancer diagnosis and to more accurate surgery for brain tumors. The scientist found that this dye, fluorescein, would be absorbed by all tissues but would be eliminated faster by normal tissue. After this dye, tagged with radioactive iodine, is injected, the surgeon can survey the surface of the skull and the brain with a Geiger counter to locate the tumor.

The development of an electronic device—called the microfluorometric scanner—for the detection of cancer cells. This scanner was developed for use with the Papanicolaou test, a method which is widely used in discovering early cancer of the uterine cervix. This device combines the reflecting microscope and the spectroscope, and enables the user to see true pictures of the structural changes in living cells. When perfected, it will relieve doctors and technicians of much of the present time-consuming scanning of specimens with the conventional microscope.

The development of the electronic fluoroscope, a promising tool for diagnosis and especially the mass screening of individuals of "cancer bearing" age. About 60,000 men and 42,000 women over 40 years of age develop gastrointestinal cancer every year. The survival rate for these cancer patients is low, but would be substantially improved if the disease could be diagnosed early. The problem of early diagnosis in such cases is to find the cancer in relatively asymptomatic persons, which calls for mass screening of individuals over 40 years old. For this purpose the electronic fluoroscope may be very useful. It has several advantages over the ordinary fluoroscope, the usefulness of which is limited by the dimness and lack of clarity of the image and by the danger of radiation. The electronic fluoroscope gives images of unparalleled brightness and allows X-ray examinations of longer duration, without danger to operator or patient. For his singular achievements the developer of this new machine was awarded the gold medal of the American Roentgen Ray Society in 1951.

The creation of an improved method, using sound waves, for diagnosing tumors of the brain and other organs. Brain tumors present an unusually difficult problem because of their location and consequences. Their diagnosis and localization is not easy, in spite of the most effective methods now available, one of which is X-ray. This use of X-ray often calls for injection of air into the cavities of the brain or into spaces surrounding it, sometimes requiring surgery and frequently causing considerable discomfort. Scientists have worked out methods using sound waves to obtain pictures of cranial contents, like those obtained with X-rays. By these methods, similar to radar and sonar, the sound waves put through the brain can be picked up and their changed characteristics electronically translated into a visual picture on a screen. Diagnosis of tumors, then, is made from the changed characteristics so depicted or from distortions of normal brain structures revealed in the picture.

The 1953 estimate will be required primarily to continue support of projects currently under way.

Research fellowships:
Grants, subsidies, and contributions:
Estimate, 1952 ---------- $500,000
Estimate, 1953 ---------- 500,000

This activity is supporting approximately 170 promising young scientists being trained in the field of cancer research under the fellowship program. The cancer research potential of the country both in private- and Government-supported institutions is substantially increased through this program, since 89 percent of the fellows trained in cancer research are still actively engaged in cancer investigations or in teaching of medical subjects relating to cancer. Cancer research fellows are also making significant contributions through research findings. A new method of radioautography (recording of radioactivity on sensitized plates) has resulted from one study by a cancer fellow.

Teaching of medical subjects:
Grants, subsidies, and contributions:
Estimate, 1952 ---------- $2,040,000
Estimate, 1953 ---------- 2,040,000

This program of grants to recognized medical, dental, and osteopathic schools provides for the establishment and improvement of cancer teaching programs for undergraduate students. The increased awareness and knowledge of cancer by the graduating students is directly benefiting the people through earlier diagnosis and the application of the newest techniques of medical care for cancer patients. In 1953 this program will provide support to 81 medical schools, 42 dental schools, and 6 schools of osteopathy.

Training stipends:
Grants, subsidies, and contributions:
Estimate, 1952 ---------- $375,000
Estimate, 1953 ---------- 375,000

Postgraduate training for qualified physicians, carried on by expert teachers at well-equipped institutions, assures the type of care for the cancer patient that saves many lives which would otherwise be lost. Training stipends for 105 graduate physicians are provided under this program.

Most of the physicians who have completed training are serving on the staffs of cancer clinics, or are holding cancer teaching positions.

Grants for detection, diagnosis, and other control services:
Grants, subsidies, and contributions:
Estimate, 1952 ---------- $3,100,000
Estimate, 1953 ---------- 3,100,000

Funds are allocated to States for detection, diagnosis, and other control services under a formula of 30-percent population, 30-percent financial need, 35-percent cancer mortality, and 5-percent population density. Among the programs receiving special emphasis in the States are: Provision for adequate diagnostic and laboratory services, encouragement of closer physician-cancer clinic relationship, information services to the public on cancer, and analysis of cancer

morbidity and mortality records. Allocations to States in 1951 and 1952 are shown in the tabulation which follows:

Allocation of grant-in-aid funds for cancer control, fiscal years 1951–52

State or Territory	1951 allocation	1952 allocation	State or Territory	1951 allocation	1952 allocation
Alabama	$70,700	$73,000	New Jersey	$92,300	$89,000
Arizona	19,800	19,500	New Mexico	18,200	19,700
Arkansas	52,400	48,300	New York	274,900	267,200
California	176,200	170,400	North Carolina	87,200	87,400
Colorado	30,500	29,900	North Dakota	17,700	17,200
Connecticut	38,300	36,900	Ohio	151,300	145,300
Delaware	5,900	6,000	Oklahoma	55,400	50,900
District of Columbia	15,600	13,800	Oregon	37,300	32,400
Florida	50,500	54,400	Pennsylvania	213,600	198,700
Georgia	72,500	75,600	Rhode Island	15,300	15,400
Idaho	18,000	16,900	South Carolina	49,800	49,600
Illinois	162,300	158,200	South Dakota	18,600	18,200
Indiana	79,000	74,600	Tennessee	72,800	72,800
Iowa	59,600	54,400	Texas	147,000	145,200
Kansas	44,500	42,200	Utah	19,200	18,400
Kentucky	72,900	69,700	Vermont	11,500	11,200
Louisiana	61,800	60,600	Virginia	63,100	65,100
Maine	24,700	24,200	Washington	46,400	44,400
Maryland	40,600	41,300	West Virginia	42,300	41,600
Massachusetts	99,000	94,900	Wisconsin	70,500	68,300
Michigan	115,500	111,900	Wyoming	11,800	11,100
Minnesota	66,700	62,400	Alaska	10,500	9,900
Mississippi	63,800	61,200	Hawaii	10,700	9,600
Missouri	87,300	82,400	Puerto Rico	59,000	55,700
Montana	16,300	16,600	Virgin Islands	1,400	1,300
Nebraska	33,800	32,300			
Nevada	9,400	9,100	Total	3,200,000	3,100,000
New Hampshire	11,600	13,700			

Grants for special control projects

Grants, subsidies, and contributions:

Estimate, 1952	$900,000
Estimate, 1953	750,000
Change	−150,000

Special grants are made to universities, teaching centers, hospitals, clinics and nonprofit professional organizations engaged in cancer-control work, with the objectives of: (1) developing new and improved diagnostic tools and case-finding procedures; (2) educating professional people and the lay public in diagnosis, treatment, and care of cancer patients; and (3) studying environmental and occupational conditions in which persons are exposed to known cancer-producing agents. The educational aspects are being developed principally through films produced for professional and lay audiences. As a result of studies of occupational conditions, certain industries have taken steps to protect their workers against cancerigenic hazards.

Research

	Estimate 1952		Estimate 1953		Change (+) or (−)	
	Positions	Amount	Positions	Amount	Positions	Amount
Personal services	515	$2,307,600	567	$2,385,900	+52	+$78,300
Travel		35,000		38,400		+3,400
Transportation of things		5,750		10,750		+5,000
Communication services		800		800		0
Rents and utility services		1,500		1,500		0
Printing and reproduction		60,000		60,000		0
Other contractual services		1,001,230		1,541,730		+540,500
Supplies and materials		400,000		400,000		0
Equipment		325,000		260,000		−65,000
Taxes and assessments		3,000		3,800		+800
Deduct quarters and subsistence		−2,880		−2,880		0
Total		4,137,000		4,700,000		+563,000

GENERAL STATEMENT

Increasing contributions to scientific knowledge in cancer research are numerous and varied, and are spread across the many fields of investigation concerned with this complex problem. The following are typical of the many accomplishments recently reported:

A new process developed by Cancer Institute scientists has made possible, for the first time, the manufacture of the essential foodstuffs called amino acids needed to keep patients alive when their normal intake of food is obstructed by cancer of the stomach or digestive tract. Up to now the production of amino acids has been unsatisfactory and very expensive. Several commercial firms are using the Cancer Institute process to manufacture pure amino acids for marketing at greatly reduced prices. This will provide ample quantities for widespread clinical studies.

Discoveries at the Cancer Institute may point the way to better methods for using a group of drugs, the folic acid antagonists, in the palliative treatment of leukemia, a fatal blood disease, in children. Results of studies in which the survival time of leukemic mice was increased by 200 to 300 percent suggest that treatment of leukemia might be more effective if folic acid antagonists in combination with other antileukemic agents were used as early as possible and at the highest tolerable dosage.

A pure form of vitamin B_6, important to research in cancer and other medical fields but heretofore nonexistent for experimental use, has been produced synthetically for the first time at the Cancer Institute. The new product is pyridoxamine phosphate. The method discovered at the Cancer Institute enables chemists to prepare large amounts of this product in pure form. Previously only crude, impure preparations of it were available for experimental studies.

Experimental tumors which provide a valuable new tool for cancer research were produced by Cancer Institute scientists during 1951. They are experimental transplantable cancers of the thyroid gland, which the scientists succeeded in growing in mice by means of an induced hormonal imbalance. Besides their value as a tool for medical research, these new experimental, transplantable tumors may open the door to improved methods for using radioactive iodine in the treatment of thyroid cancer in human beings.

The National Cancer Institute conducts investigations in basic and clinical research. Research efforts of the scientist at the bench and at the bedside are so closely linked that they must be regarded as a research entity incapable of division into basic and clinical areas. With the utilization of Clinical Center facilities, and the initiation of broader programs of clinical research, rapid translation and application of new information to the diagnosis and treatment of cancer in human patients will provide a research effort more comprehensive than ever before attainable.

CANCER-CONTROL PROGRAM

Senator CHAVEZ. Dr. Heller, are you ready to proceed?

Dr. HELLER. Yes, Mr. Chairman.

Senator CHAVEZ. You are going to discuss salaries, expenses, and grants, National Cancer Institute?

Dr. HELLER. With your permission, Mr. Chairman, I would like to make a brief opening statement.

The word "cancer" brings to mind many meanings to many different people. It is not necessary, I believe, to relate the toll of cancer or its impact upon the people generally. Suffice to say it was and has been of such importance that the Congress set up the first institute, so-called categorical institute, in an effort and with the desire to combat this disease.

I should like to say that cancer is not one disease, but many diseases. It has been stated that there are probably more types of cancer than many other diseases.

Since we have not succeeded in establishing the cause of cancers, we have not succeeded in approaching the control of cancer as we have other diseases. That, however, we believe will yield to science, and

toward that end a program has been set up in the National Cancer Institute which we believe will accomplish that goal.

Reduced to its simplest form, the purpose of the program of the National Cancer Institute is to reduce the number of deaths occurring from cancer. To accomplish that, the program is a three-pronged approach, the first of which is intramural research at Bethesda as originally charged by the Congress for the investigation of cause, diagnosis, treatment, and prevention of cancer—a very broad charge but a very good charge.

The second prong or approach to the cancer problem is participation in programs of disease control with the State health departments, local health departments, institutions, medical schools, and all others concerned, including a very large group of private physicians. That also is aimed toward establishing the cause, diagnosis, treatment, and prevention, and ultimately focuses or funnels directly to the original charge as set forth by the Congress.

The third prong of the attack is the support of research and training in order to provide the manpower, better skills, and more skills directed to cancer research, control, and better treatment of cancer.

The various problems, I think, in cancer do not need to be elaborated. Suffice to say there are many.

There have been many contributions to the knowledge of cancer. They are very great, and all of the points of science are involved in this complex problem.

DIAGNOSTIC FACILITIES

I should like to indicate to you, Mr. Chairman, a few of the things that have been accomplished which I believe are noteworthy. To begin with, in a tangible, practical way, there has been increased for practical purposes, almost directly, from the funds made available by the Congress to the State and local health departments and citizens, an increase of from 407 diagnostic facilities in 1947 to something better than 1,000. At the same time research and activity generally have increased the ability to diagnose cancer thoroughly.

Also, it has been established that the earlier diagnosis of cancer makes for saving of lives. If one can delete a cancer from a human body before it has a chance to spread, the individual, then he can live to his normal age. That has been increasingly demonstrated as witness the fact that there has been a 25-percent decrease of mortality of cancer in women.

Senator CHAVEZ. Are those skin cancers or internal cancers?

Dr. HELLER. In the instance of the 25-percent decrease of mortality in women, Mr. Chairman, that is of breast and cervix, part external and part internal.

Senator CHAVEZ. I do not know if that is the right term that you use, but they classify those as exterior cancer.

Dr. HELLER. Yes, sir; exterior, or accessible and inaccessible being the usual terms. There has been a 10-percent decrease in mortality in cancer in women in the country generally, throughout our general medical centers.

We hope that in time the decrease in mortality will prevail throughout the country as physicians are informed more and more, and better, about the things to do to improve the mortality rates.

FILMS

Films have been provided for physicians and lay people, in other words, to bring to the attention of the lay people the necessity for going to a physician early with cancer, doing something about it promptly. Toward that end, every available media that we know in communications has been used: film, brochures, lectures, television, radio. And very successfully, we believe, but much more needs to be done. Some of the films that we have produced in collaboration with the American Cancer Society have won first prizes in medical films of the Venice Festival.

Senator CHAVEZ. Is it not correct to say that the American people, as a whole, are taking more interest in getting information with reference to cancer?

Dr. HELLER. Very definitely, Mr. Chairman. And it is one of the gratifying things about the program that their index of suspicion has been raised, and the index of suspicion and the alertness of the physicians have been raised. We hope to raise it even more. By "we" I mean not only those of us concerned with the program but private physicians generally, and everyone concerned with the program.

DAMON RUNYON CANCER FUND

Senator CHAVEZ. And private corporations or entities have devoted themselves to this proposition of cancer. There is that newspaper writer, Damon Runyon. I understand he died of cancer and, as a result of that, they developed the Runyon Foundation, we might call it. I understand they are spending more money, possibly, than even the Federal Government for work.

Dr. HELLER. No, sir; that is not quite correct. But a substantial sum of money from the Damon Runyon Fund is being used. The American Cancer Society is the major voluntary agency in the field, and is followed by the Damon Runyon Fund and several smaller ones, all working toward the same end. As a result of the interest of people generally, there has been an increase in the amount of Federal funds going for cancer. At the same time, there has been an increase of the amount of funds made available to voluntary foundations. Both, of course, are very gratifying.

RESEARCH CONTRIBUTIONS

To mention just a few of the research contributions, Mr. Chairman, merely as being indicative of progress. There have been 2,000 compounds, 2,800 compounds tested which have some tumor-damaging properties. Four hundred of these have proved to be very interesting and, narrowing these down, 12 of them have been found to have very, very interesting possibilities in the future treatment of cancer. Only time will tell ultimately as to how significant one or more of these will be. But it is certainly a step in the right directon, and it is conceivable that there may emerge for some cancers a chemical treatment. Many people are working in that field.

We have found in Bethesda, for instance, that massive doses of sex hormones are very useful in the treatment of some forms of cancer, particularly cancer of the breast, and cancer of the prostate. I don't mean to imply that this is new at Bethesda. The use of hormones in

the treatment of cancer has been known for some time. But new developments and new angles and ideas have developed at our place as well as at others.

This is believed to be a very promising field.

CANCER DIAGNOSIS MACHINE

There have been many interesting gadgets devised, one that is particularly interesting in the diagnosis of cancer is an instrument which is electrically powered and when it comes in contact, when the beam comes in contact with a cancer cell, a light glows which comes from the difference in the amount of light emitted by a cancer cell as contrasted with the amount of light emitted from a noncancer cell. So it has a very practical significance in a quick determination of cancer of the uterus.

Senator CHAVEZ. I wonder if that was not the machine that Dr. Rhoades tested on May 10 of last year?

He said, in dealing with a photograph taken through a microscope—

That the cancer cells showed up in this manner. This is a difference between a 25-watt bulb and a 75-watt bulb. It can be picked up mechanically, can be amplified electronically, and the cancer cells can be found by giving a signal to the operator of the machine.

Dr. HELLER. That is correct. That is the so-called microfluorometric method.

Senator CHAVEZ (reading):

It operated last night for the first time. It has been 3 years in the building. It has required the cooperation of the American Optical Co., of the Polaroid Corp., of the British Laboratories working on special microscopes, and of RCA. It has required finding a person inclined to work on this problem, inducing him to work on this problem, providing the support and the skilled technicians to bring this about. It has been an expensive procedure. We believe it to be worth while.

That is the one that you are referring to?

Dr. HELLER. That is correct, sir. It has been extended, and it is believed it will be of practical importance in the average clinic. Of course, the cost of these things comes down as one gets into volume production.

DIAGNOSIS OF BRAIN TUMORS

Another interesting thing is one which also gives promise for the diagnosis of tumors of the brain through supersound or ultrasound, as they prefer to call it. This is the principle in which a machine scans a part of the body, particularly the brain, and the difference in the waves that come back to the machine from the sound hitting it produces a picture on a chart and one is able, ideally, to localize a brain tumor.

RADIOACTIVE ISOTOPES

In addition, also, there has been an advance in Minnesota in which one surgeon working there had been able to localize brain tumors through the administration of a dye containing a radioactive isotope.

Senator CHAVEZ. Is that the medical school?

Dr. HELLER. Yes, sir; at Minneapolis, the University of Minnesota. This has been of very practical assistance in localization of

brain tumors right at the operating room, which enables them to pinpoint the tumors and thereby do better surgery, and with less trauma to the rest of the brain.

There have been marked developments in the so-called multi-million-volt radiation activities. We have known for some time that the use of radium and X-rays are useful in the treatment of cancer. Only in the last few years has it become generally known that the million-volt machines have a special value in treating deep-seated cancers, and some machines can now go up as high as 90 to 100 million volts and still be used with a human being. It is possible to go up to 500 million volts, even to a billion volts, ideally. But whether or not it is indicated to use these on human beings has not been established. It has been found that through refinement of positional rotating of patients, the better understanding of the machines, to accomplish some very remarkable results in the treatment of cancer.

All of these things, Mr. Chairman, have contributed to the reduction of mortality rates in individuals. Some of the things we hope to do in the future, which we have scratched the surface on at least, have to do with the prevention of cancer.

OCCUPATIONAL CANCER

This is best illustrated by the work in the occupational field, in which we know that certain environmental agents cause cancer; for instance, sunlight. In the South, we find about twice as many skin cancers as we do up North. We find people who are exposed to chromate and certain dyes will develop cancer 10 to 20 times as great as the person not exposed, and so on down the scale in many chemical and physical agents. Therefore, one very good field in which we can accomplish much is in this field of environmental work.

Senator THYE. Might I interrupt?

If that is a finding down in the South or in the Southern States, would it be true in some of the South Pacific islands where, of course, you have a great deal more sunlight there than you would have even in the Southern States of the United States?

Dr. HELLER. Yes, sir. It has been observed, Senator, that this does occur. We do not have good epidemiological data from some of the South Pacific countries. We are getting more and more information as more scientists are brought into this program.

We call that geographic pathology or the difference in the occurrences of cancer in different parts of the world. After all, it comes down to a question of epidemiology or the study of the disease.

We hope that the result of some of the studies now being made will provide some very practical measures which can be advanced, other than just keeping out sunlight. Perhaps the application of some chemical will have an effect.

Senator CHAVEZ. Doctor, perhaps we should get down to how they treated you in the budget, if we may.

If you care to put anything further into the record in addition, or a statement, you may write it out.

1953 BUDGET ESTIMATE

Dr. HELLER. I had completed essentially my statement, Mr. Chairman.

The amount of funds which we are supporting is $15,371,000, which is a decrease of $4,129,000 over the amount of funds allowed in the current fiscal year.

This decrease is due to the completion of the funds for liquidation of the contractual obligations of the government in the construction grants program.

The items, Mr. Chairman, are for practical purposes essentially the same as for the current fiscal year, with one or two exceptions.

The funds are included in this budget for operation of the clinical center, and which are, of course, transferred to the National Institutes of Health, Clinical Center, for the operation of the clinical facilities.

1952 APPROPRIATION

Senator CHAVEZ. First, in the 1952 appropriations, it was $19,500,000.

Dr. HELLER. That is correct, sir.

Senator CHAVEZ. Then you were submitting your justification to the Budget Bureau, and you requested $16,335,000.

Dr. HELLER. That is correct.

Senator CHAVEZ. And the Budget Bureau only allowed you $15,371,000.

Dr. HELLER. That is correct, sir.

Senator CHAVEZ. So even your request was lower than the amount appropriated last year.

Dr. HELLER. That is correct, sir.

Senator CHAVEZ. Why was that?

Dr. HELLER. That, Mr. Chairman, was due to the liquidation of construction grant authority.

Senator CHAVEZ. I see. The liquidation.

Dr. HELLER. Yes, sir.

May I say, Mr. Chairman, that that $16 million figure did not include the Budget figure which also was indicated to the Bureau of the Budget as being a desirable addition to the program. It was $1,550,000.

Senator CHAVEZ. Of course, we all appreciate and respect the position of the Budget Bureau on matters of dollars and cents, but in carrying out the duties that the Congress imposed upon the Bureau of Public Health, along this particular item of cancer research and related activity, how do you feel about it?

We want you to give us your professional and official opinion in the matter. Will you be able to get along?

Dr. HELLER. Mr. Chairman, we believe, and it is so indicated, that the very minimum that we could operate on and carry out this program in accordance with the charge of the Congress was $17,885,000, which gave us an opportunity to expand in one or two areas which we thought to be very necessary expansions.

Senator THYE. Doctor, may I ask what areas?

Dr. HELLER. Areas, sir? Research grants, money going to States and grants to States for extension of public health work, also, and for some special projects which also went out to State institutions dealing principally with so-called aid for cancer cures, for the investigation of cancer cures.

Senator THYE. In other words, if the funds are curtailed, the real research in some of those cancer cures would have to be extended over a longer period?

You could not put the intensified research into that field that you yourself think you should do?

Dr. HELLER. That is our belief, sir.

Senator CHAVEZ. I shall place in the record a table outlining the budget requests from the agency to the Budget Bureau, by activities, and the Budget Bureau's approval.

(The table referred to follows:)

Salaries, Expenses, and Grants, National Cancer Institute

Obligation by activities

Description	1951 actual		1952 estimate		1953 estimate requested of Budget Bureau						1953 President's budget	
					Within ceiling		Over ceiling		Total			
	Position	Amount	Position	Amount	Position	Amount	Position	Amount	Position	Amount	Position	Amount
1. Grants:												
(a) Grants for research and training:												
(1) Research projects	------	$3,129,079	------	$3,100,000	------	$3,200,000	------	$650,000	------	$3,850,000	------	$3,100,000
(2) Research fellowships	------	523,771	------	500,000	------	500,000	------	0	------	500,000	------	500,000
(3) Teaching of medical subjects	------	2,037,470	------	2,040,000	------	2,225,000	------	0	------	2,225,000	------	2,040,000
(4) Training stipends	------	359,888	------	375,000	------	375,000	------	0	------	375,000	------	375,000
(b) Grants for detection, diagnosis, and other control services	------	3,033,908	------	3,100,000	------	3,100,000	------	400,000	------	3,500,000	------	3,100,000
(c) Grants for special control projects	------	926,313	------	900,000	------	900,000	------	200,000	------	1,100,000	------	750,000
2. Direct operations:												
(a) Research	526	3,639,162	515	4,137,000	626	5,148,068	------	302,000	626	5,450,068	567	4,700,000
(b) Other direct operations:												
(1) Technical assistance to States	88	380,072	83	415,000	88	445,948	------	0	88	445,948	77	378,000
(2) Review and approval of research and training grants	11	62,445	11	85,000	11	87,249	------	0	11	87,249	10	78,000
(3) Administration	25	334,757	22	354,000	22	353,735	------	0	22	353,735	22	350,000
Total direct obligations	650	14,426,865	631	15,006,000	747	16,335,000	------	1,552,000	747	17,887,000	676	15,371,000

Senator CHAVEZ. Thank you, Doctor.

(Whereupon, at 4:26 p. m., Monday, February 25, 1952, the hearing was recessed until 10:30 a. m., Tuesday, February 26, 1952.)

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